Journal of Home Economics

PUBLIC LIBRARY
JAN 1 0 1944
DETROIT

VOLUME 36 NUMBER 1

Home Economics—Whither Bound?
Lita Bane

The Professional Attitude
Genevieve Callahan and *Margaret M. Justin*

Grade Labeling of Canned Foods
Margaret Reid

Commercial Dehydrated Foods
Kenneth T. Farrell

After the War—Full Consumption
Helen R. Jeter

Palatability Studies on Home-Dehydrated Vegetables
Judith Tannen Stillman, Betty M. Watts, and *Agnes Fay Morgan*

January 1944

Published by
AMERICAN HOME ECONOMICS ASSOCIATION
WASHINGTON, D. C.

R v.36 1949

In Our Next Issue . . . . . .

THE TEXTILES KALEIDOSCOPE

rotated by the gnarled hand of Mars, the clothing picture today, and the outlook for the months to come are described by RUTH O'BRIEN, chief of the textiles and clothing division in the USDA.

YOUR HOSIERY, MADAME!

What you can expect in hose this year as a result of OPA and WPB rulings is outlined by MARGARET SMITH, who also traces the development of hosiery labeling from 1934 through the latest federal regulations.

FOOD IN NORTH CHINA

A nutritionist and a doctor, MARTHA KRAMER and CLARA NUTTING, give a colorful report of wartime and prewar foods and food habits. The two women were in custody of the Japanese from December 7, 1941, until September 1943. They arrived in the USA December 1.

WHAT SHALL IT PROFIT US

if we develop the family as a beautiful, strong tree but fail to protect it against fire and blight? This in allegory is the question put by DAY MONROE as she points out the need for a new type of education for home economists.

NURSERY SCHOOLS IN MR. KAISER'S YARDS

MIRIAM LOWENBERG tells of schools set up through the cooperation of the government, the shipyards, and professional workers in early childhood education.

AND BESIDES THESE

BERNICE DODGE reports how the 18 HEWIB groups help young home economists find business jobs. MAY CRESSWELL writes about the nutrition demonstration clinics at a Mississippi Home Economics Association meeting.

THE JOURNAL OF HOME ECONOMICS is published monthly, except July and August, by the American Home Economics Association, 620 Mills Building, Washington 6, D. C.

Rates: $2.50 a year. Extra postage: Canadian 25 cents, foreign 50 cents. Single copies 30 cents.

Active members of the American Home Economics Association pay $3 national dues in addition to state dues and receive the JOURNAL OF HOME ECONOMICS, $2 of the dues being assigned to JOURNAL subscription.

Notice of change in address should be received two weeks before the date of issue on which the change is to take effect. Both the *old address* and the *new address* should be given.

Entered as second-class matter at the Post Office at Washington, D. C.

Ref

BUY WAR BONDS AND STAMPS

"Why does our wine turn sour, M. Pasteur?"

It was 1865 when Louis Pasteur showed the wine makers of his native France how to keep their product from souring by heating it to about 145° F.

The world was slow to see the value of "pasteurization." Some thirty years later, when the first American dairy began to sell pasteurized *milk*, the move met bitter opposition.

"Fraud and nonsense," cried competitors. But doctors soon noticed that the death rate dropped where pasteurized milk was used.

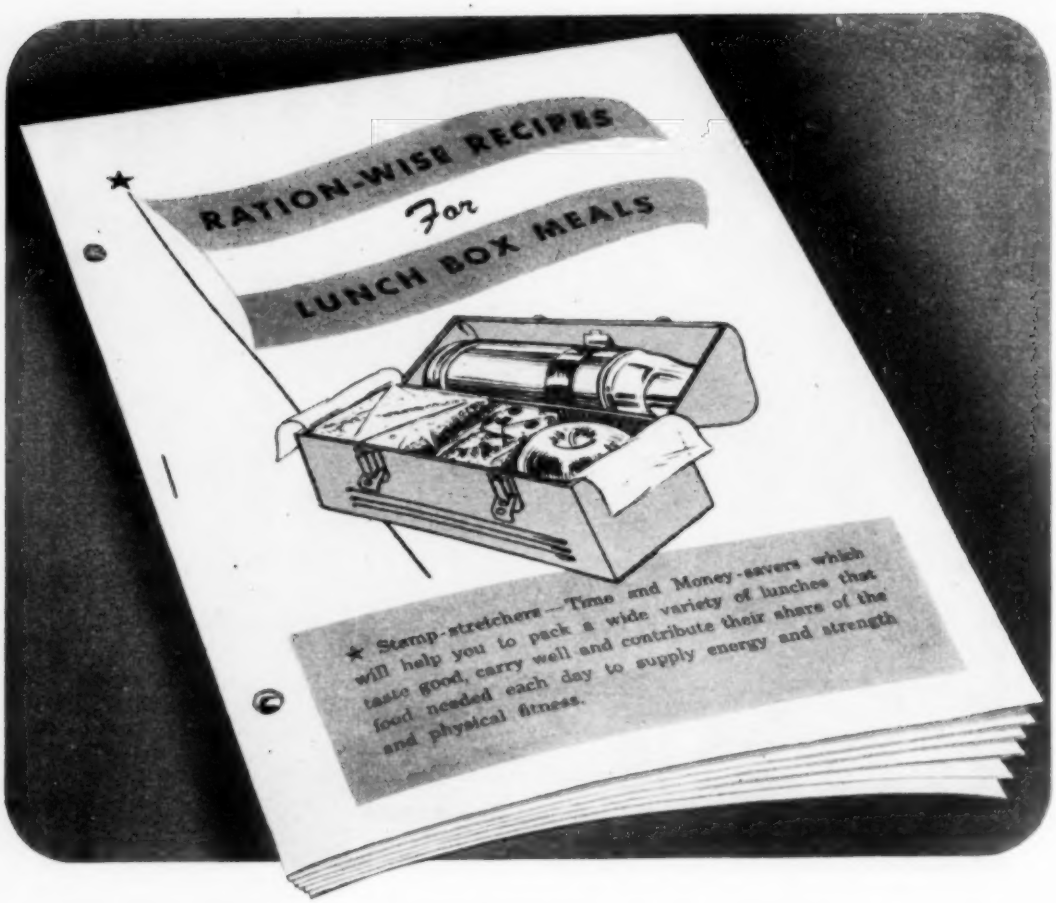
By 1915, a progressive cheese company succeeded in producing pasteurized, packaged *cheese*. It was another big advance. It assured uniform quality and purity even in distant markets. It meant no rind, no waste. It provided a greater variety of cheeses for family nutrition.

That milk company was Sheffield Farms and that cheese company was Kraft. *Both* are important parts of National Dairy—and their pioneering spirit lives on in the modern National Dairy Laboratories.

Dedicated to the wider use and better understanding of dairy products as human food—as a base for the development of new products and materials—as a source of health and enduring progress on the farms and in the towns and cities of America.

Kraft Sealtest Breyers

NATIONAL DAIRY
PRODUCTS CORPORATION
AND AFFILIATED COMPANIES


RATION-WISE RECIPES
For
LUNCH BOX MEALS
★ Stamp-stretchers—Time and Money-savers which will help you to pack a wide variety of lunches that taste good, carry well and contribute their share of the food needed each day to supply energy and strength and physical fitness.

BECAUSE adequately nourishing lunch boxes are more important than ever before, this collection of tested recipes has been assembled to assist in showing how well-balanced meals that "carry well" can be prepared and packed so they will be tempting, most wholesome and nourishing and, at the same time, be low in cost.

In these recipes, Irradiated Pet Milk is a most important ingredient. By its use more of the valuable substances of whole milk and vitamin D can be included in the food. And the food costs less because Irradiated Pet Milk costs less generally than ordinary milk, much less than cream.

Home Economics Department, **PET MILK COMPANY**
1448-a Arcade Building, St. Louis 1, Missouri

Please send me, free of charge, one copy of "Ration-Wise Recipes for Lunch Box Meals"

I teach *(subjects)* _____ in _____ School *(grade)* _____

Name _____ *Address* _____

City _____ *State* _____

(Fill in completely. Offer limited to residents of Continental U. S.)

Detroit Public Library

VOLUME 36
NUMBER 1

Journal of Home Economics

OFFICIAL ORGAN OF THE AMERICAN HOME ECONOMICS ASSOCIATION

EDITORIAL STAFF

HELEN P. HOSTETTER
Editor

MARION H. STEELE
Assistant to the Editor

BUSINESS MANAGER

KETURAH E. BALDWIN

ADVISORY BOARD

JESSIE W. HARRIS
President of the AHEA
University of Tennessee

FLORENCE FALLGATTER, *Chairman*
Iowa State College

MRS. KATHRYN VANAKEN BURNS
University of Illinois

MRS. MABELLE S. EHLERS
Michigan State College

MRS. FLORENCE LAGANKE HARRIS
Home Economics Consultant, Cleveland

MRS. HARRIET R. HOWE
Consumer Education Service, Washington, D. C.

RUTH HUEY
Texas State Supervisor of Home Economics

MRS. KATE W. KINYON
Denver Public Schools

EARL C MCCRACKEN
Teachers College, Columbia University

RUTH O'BRIEN
U. S. Bureau of Human Nutrition and Home Economics

MRS. BLANCHE HEDRICK RAFFERTY
Box 64, Canton, Illinois

ELIZABETH RIVERS
Farm Security Administration, Milwaukee

SYBIL L. SMITH
U. S. Office of Experiment Stations

EDNA M. VAN HORN
Oregon State College

Contents for January 1944

		PAGE
WASHINGTON NEWS		Facing 1
HOME ECONOMICS—WHITHER BOUND?	*Lita Bane*	1
THE PROFESSIONAL ATTITUDE	*Genevieve Callahan* and *Margaret M. Justin*	5
GRADE LABELING OF CANNED FOODS	*Margaret Reid*	9
PRETREATMENT OF FOODS FOR DEHYDRATION	*Betty M. Watts*	13
COMMERCIAL DEHYDRATED FOODS	*Kenneth T. Farrell*	16
AFTER THE WAR—FULL CONSUMPTION	*Helen R. Jeter*	18
IN SHORT		
Food for Freedom	*Benjamin R. Andrews*	22
Farm Women's Market	*Wilma A. Stanley*	23
ADA Meeting	*Helen Everett*	24
COMMENT		
Prologue to Action		25
Home Canning		26
Exploitation of Children		27
RESEARCH		
Palatability Studies on Home-Dehydrated Vegetables	*Judith Tannen Stillman, Betty M. Watts,* and *Agnes Fay Morgan*	28
Serviceability of Full-Fashioned Cotton Hose: A Study of Hosiery Knit with Various Toe Reinforcements	*Margaret B. Hays* and *Mary Caroline Boyer*	35
FOOD AND NUTRITION DIVISION		38
NEW BOOKS		39
ABSTRACTS		42
FROM THE EDITOR'S BASKET		54
NEWS NOTES		56

Indexed in Readers' Guide to Periodical Literature and in Education Index

Copyright, 1944, by the American Home Economics Association
Printed in the USA

A Check List of Basic Texts Offering the Latest and Best in the Fundamentals of Homemaking

LET'S STUDY FOODS

HARRIS AND HENDERSON. $1.68

For introductory work in foods, emphasizing that good nutrition makes strong Americans.

FOODS

HARRIS AND HENDERSON. $1.76

Nutritive, economic, and social values for advanced high school classes.

CLOTHES WITH CHARACTER

CRAIG AND RUSH. $1.40

A sensible text on essentials of buying, wearing, repairing, and caring for clothes and textiles. A "Charm Chart" free with the text; separately, 12 cents.

THE NEW HOME ECONOMICS OMNIBUS

HARRIS AND HUSTON. $1.76

Up-to-the-minute, comprehensive, and interesting for composite courses.

THE HOUSE AND ITS CARE

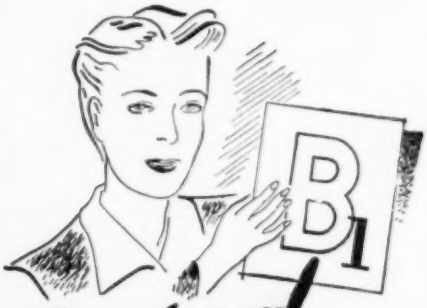
New Edition, MATTHEWS. $1.76

Units on housing and construction, and on every room inside the house, with much information to promote good management and conservation.

Published by

LITTLE, BROWN & COMPANY

34 Beacon Street, Boston 6, Mass.



Natural -NOT ADDED

Nature's way is best! That's why it's important to know that Maltex Cereal contains those appetite-inducing B-1 Vitamins *naturally*, not artificially added. And this hot, brown, *wheat* cereal is not only wholesome and nourishing—it is *delicious;* delicately sweet, nut-like in flavor; a real change in breakfast cereals.

MALTEX *Cereal*

Let Us Send You

"YOU and YOUR CHARM"

An inventory for teen-age girls, student nurses or student dietitians, in posture, weight, skin, hair, eating habits, etc. With diet suggestions, exercises and other methods of improvement; and space to note progress. Order one for each girl. (Offer limited to schools North of Washington, D.C. and East of Chicago)

HOME ECONOMICS DEPT.
The Maltex Company
Burlington, Vermont

(In writing to advertisers, please mention the journal—it helps.)

The eye is quicker than the hand!

Sally's mental eye is so quick that her party dress is all finished before she sews the first stitch. Her skating skirt is a flash of red on the school pond before you've shown her how to fit the pieces together.

"Help us make sewing a vital part of our students' daily lives," is what many home economics teachers asked us. In our new Monthly News Bulletin "Stitch in Time," you'll see the results of some interesting experiments along this line, made with the cooperation of enthusiastic teachers and classes. Each Bulletin is packed with inspiration and ideas to help make sewing lively and constructive.

We invite your suggestions for future Monthly News Bulletins. In the meantime, is your name on our list to receive "Stitch in Time" regularly?

Write for free copies for yourself and your students.

The Educational Bureau
The Spool Cotton Company
745 Fifth Avenue, New York, N. Y.

J. & P. COATS CLARK'S O.N.T.
CROWN ZIPPERS

WHAT SINGLE CONTAINER stands up under

...ALL THE TESTS OF WAR?

1. CONTENTS ABOVE PAR?—when they've packed in cans. That's why they're used for our fighting men gone overseas in cans. Yes, food and milk, blood plasma, first-aid kits, gasoline, signal flares—and so on. Hundreds of items that must have sure protection against germs, dirt, gas poisons, moisture, heat and cold.

2. WHEREVER THE BOYS ARE . . . In the sizzling tropics . . . the frozen arctic . . . on the fighting fronts . . . the sturdy can goes too. A large variety of essential supplies moves forward to combat troops under the dependable protection of the familiar "tin can"—which is actually more than 99% steel and less than 1% tin.

3. WHAT A BEATING! Under fire . . . over rocky terrain . . . the problems of supply call for a container that will stand up under terrific punishment. Because vital war needs get the first call on cans today, many civilian items such as talcum, beer, tea, oil, and tobacco are packed temporarily in substitute containers.

4. FOOD TO FIGHT ON! The goodness, the freshness, the nourishment of foods are ideally safeguarded by cans. Approximately six pounds of food are authorized for every U. S. fighting man, every day. His food must be pure—safe. Most of this food is protected in that familiar tin-coated steel container—the can.

...ALL THE TESTS OF PEACE?

1. CONTENTS KEEP SAFE!—ready to use at your convenience. Cans are hermetically sealed—non-porous. They protect against loss of flavor, odor, vitamins, and minerals. And they're so easy to heat or ice, so easy to dispose of. Women wise in the ways of housekeeping know that no other container is so convenient as the can.

2. WHEREVER YOU ARE, whatever the season, the can makes available an exciting variety of foods to help keep meals tempting and nutritious, at very little cost. And canned foods are so readily digestible . . . excellent for children because they retain the high vitamin and mineral content of the fresh food itself.

3. THEY JUST DON'T BREAK! Drop a can and there's no harm done! Stack one on top of another in tight closet space. Cans are easy to handle in every way—easy to carry, easy to store, easy to open. That is just part of the reason why some forty-five million cans are normally used every single day in this country.

4. FOOD TO GROW ON! Meats, fish, and milk . . . canned foods are selected for quality. Many fruits and vegetables are specially grown from packaged seed . . . preserved at the peak of their flavor goodness. Delicious—nutritious—inexpensive. Buy wisely—don't waste . . . and save your cans for salvage.

Can Manufacturers Institute, Inc.

NO OTHER CONTAINER PROTECTS LIKE THE CAN

ON THE OPPOSITE PAGE is the first of a series of advertisements presenting the tin can to the American public as the ideal protective container. It appears currently in national magazines in four colors, reaching practically every person in the United States.

As one of the sponsors, American Can Company brings this campaign to your attention as a program which will increase consumer understanding of the vital role the can is playing in war and will play in peace. For further details write—Can Manufacturers Institute, Inc., 60 East 42nd Street, New York 17, N. Y.

CANCO

AMERICAN CAN COMPANY

230 PARK AVENUE, NEW YORK 17, N. Y.

Announcing the School Edition of
DECORATING FOR YOU
By Florence B. Terhune

The *complete* book of home decoration, *completely* new, by a recognized authority in the field! Chock full of new ideas, simply and clearly written, and charmingly illustrated with crisp, line drawings, this invaluable book belongs in every home economics classroom. It is a fitting addition to the following list of basic source materials.

BETTER DRESSMAKING
By Ruth Wyeth Spears

256 pages **List Price $2.40**

HOME CANNING FOR VICTORY
By Anne Pierce

122 pages **List $1.20**

THE WAY WE WASH OUR CLOTHES
By Eleanor Ahern

160 pages **List $1.60**

HOME DECORATION WITH FABRIC AND THREAD
By Ruth Wyeth Spears

164 Pages **List $2.00**

SILVER BURDETT COMPANY
New York **Chicago** **San Francisco**

HISTORIC COSTUME
By LESTER

Complete in coverage of all important historical fashion details, illustrated with reproductions from the old masters and many special drawings to show characteristic features of every period. The revised edition completes the attractive story to 1940 and includes revisions throughout. Widely used by little-theater groups and all students of costume. Cloth, $3.50.

ACCESSORIES OF DRESS
By LESTER AND OERKE

Wartime demands for this luxurious coverage of 43 dress accessories through the ages are continuously increasing. Is proving its value every day as a "one-volume bible" of inspiration for any teacher seeking to achieve variety and interest in clothing courses under present conditions. Illustrated with more than 700 authentic photographs and drawings. Beautifully printed and bound. 600 pages, $10.00.

GOOD TASTE IN DRESS
By McFARLAND

Basic consideration of line, color, accessories, fabric and other details of dress as related to physical and mental characteristics of various types of girls. Written and illustrated to emphasize personality factors of clothing study. Cloth, $1.25. Paper, 88 cents.

THE MANUAL ARTS PRESS
PEORIA 3, ILLINOIS

Splendid Opportunity for

CAREER WOMEN
in Home Economics

Fascinating variety in positions supervising laboratory quality control in essential basic food industry with plants in various states. Youthful, progressive, fast-growing organization. Women accepted today will receive special training for today's positions as well as for future expansion of the company.

Preferred Qualifications: Home Economics graduates with major in foods. Experience in foods. 25 to 40 years of age. Pleasing personality; must enjoy working with people. Send recent photograph and all information in first letter.

Write Cora Wecht, Director

OMAR INCORPORATED
1910 Harney Street
Omaha 2, Nebraska

How to Buy Blankets in Wartime

USE CHATHAM'S HELPFUL 6-PAGE FOLDER:
"HOW TO BUY BLANKETS INTELLIGENTLY" (*Wartime Edition*)

This popular folder, used and recommended by many thousands of women in home economics, consumer and teacher groups, has been brought up to date to meet the latest wartime restrictions. An insert, explaining the effect of war conditions on wool and blankets, has also been added. The folder illustrates and describes Chatham Specification Labels, and will be sent free, in reasonable quantity, for discussion groups or classroom use. Mail the coupon today.

This is the famous Chatham Informative Label, approved by the National Consumer-Retailer Council. It tells the facts, enables you to determine for yourself Chatham quality and value.

Chatham Blankets

"THE AMERICAN STANDARD FOR BEDTIME COMFORT"

SEND FOR FREE FOLDERS TODAY!

Chatham Mfg. Co., Educational Dept., 57 Worth St., New York, N. Y.
Please send ..... free copies of "How to Buy Blankets Intelligently" (*Wartime Edition*)

Name .....

Address .....

Detroit Public Library

Washington News...

• 15,000 pressure stockpots (pressure cookers to you) are being made for 1944 canning season for use in community canning centers. Modeled after submarine cookers, of 40-quart liquid capacity, they will handle 12 glass jars or 18 tin cans at a time, last a lifetime. Tin cans for centers also allocated. WFA to hold Jan. 17–28 workshop in Peoria & Pekin, Ill., to train leaders from all over nation to supervise women at centers as they can for themselves, school lunch programs, welfare agencies, & hospitals.

• AHEA headquarters' recent activities:

1. Represented consumers at OPA's rayon hosiery pricing—labeling sessions with men from "the trade." OPA holds price line; wherever it allows slight increase in branded hose, it orders corresponding lowering of unbranded; tags must be firmly fixed, give gauge & ceilings in dollars & cents.

2. Referred to AHEA'S housing division National Housing Agency request for suggestions for postwar housing, with private industry handling all possible, Uncle Sam filling gap with public housing.

3. Called on Tarver, chairman of House subcommittee on agricultural appropriations; on Bureau of Budget heads; on Dr. H. C. Sherman, chief of Bureau of Human Nutrition & Home Economics, to urge $675,000 appropriation for BHNHE research on critical home problems: in food processing & storage, housing, income-spending adjustments, school feeding, clothing, textiles, translating into lay words results of research.

Margaret Edwards, AHEA's legislative chairman, came up from North Carolina to make the interviews with Jessie Harris, Dora Lewis, Gladys Wyckoff, for AHEA's Advisory Committee on BHNHE, Dec. 4–5, as President Roosevelt was soon to make budget recommendations to Congress.

4. Sent out questionnaire to 37 states from AHEA's textiles & clothing division officers to learn extent & character of shortages. Spot survey to provide ammunition for statements to WPB & OPA, in part through AHEA's members on OPA's consumer advisory committee: Harriet Howe, Hazel Kyrk, Pauline Beery Mack . . . Among findings from states reporting to date: "preposterous" prices for children's clothing, many articles not to be found (especially children's underwear, overalls, galoshes), $100 inadequate to prepare for baby's arrival (for bed and clothes), stores refusing to sell diapers unless shopper gets at least $20 of other baby wear.

5. Worked with Extension Service & FSA to help BHNHE set up minimum standards for postwar farmhouse for self-sustaining farmer.

6. Held conference Dec. 4–6 in headquarters office, sponsored by AHEA's division of family relations & child development. Purpose: to aid home economists working in community programs of family life education & child care. Women attending: Misses Amery, Amidon, Brown, Creighton, Day, Goodspeed, Herrington, McNaughton, Miller, Noer, Prall, Stout, Tucker, Wyckoff, & Mesdames Lewis, Tate, Waring.

• Home economists in St. Paul-Minneapolis homemakers' section of AHEA, irate at shoddy & expensive clothes & yard goods, at luxury goods flourishing while low-price lines disappear, wrote OPA, AHEA, BHNHE in mid-December urging investigation, action. These protests provided more factual material for AHEA members on OPA's consumer advisory committee.

• Prospects fair for stores getting sheets for usual white sales. Source of uncertainties: size of federal orders for equipping Uncle Sam's new ships & for foreign relief. Prospects for all-wool blankets excellent.

Journal of Home Economics

VOL. 36, NO. 1
JANUARY 1944

Home Economics—Whither Bound?

LITA BANE

Dr. Bane became head of the home economics department at the University of Illinois in 1936 after having had rich experience in extension work, in teaching in Washington and Wisconsin, in editing the homemaking section of the Ladies' Home Journal, and in work as a member of President Hoover's committee on education. She has been executive secretary of the AHEA and its president and held the Ellen H. Richards fellowship for one year.

IN a world where streamlining is important if goals are to be reached quickly and efficiently, it may not be amiss to consider the design, the cargo, and the goal of our ship.

Reading the signposts of earlier days, we find that the Lake Placid Conference of 1902 formulated the following statement:

> Home economics in its most comprehensive sense is the study of the laws, conditions, principles, and ideals which are concerned on the one hand with man's immediate physical environment and on the other hand with his nature as a social being, and is the study especially of the relation between these two factors.
>
> In a narrow sense the term is given to the study of the empirical sciences with special reference to the practical problems of house work, cooking, etc.
>
> In forming a complete definition, however, it may be possible to consider home economics as a philosophical subject, i.e. a study of relation while the subjects on which it depends, i.e. economics, sociology, chemistry, hygiene and others, are empirical in their nature and concerned with events and phenomena.
>
> . . . Almost every school or college above grade of high schools pretends to have departments of economics and philosophy as well as natural science. What is possible in such schools even, is something to bind together into a consistent whole the pieces of knowledge at present unrelated.

Ten years later we find that home economics was defined by the American Home Economics Association as:

> A distinctive subject of instruction including the economic, sanitary and aesthetic aspects of food, clothing and shelter as connected with their selection, preparation and use by the family in the home or by other groups of people.

This is a narrower definition but thoroughly in keeping with the spirit of the time. Scientific research in the area of natural science was progressing rapidly. Things were in the saddle and riding hard. Note the emphasis upon things in this definition.

Home economics has grown and expanded its field until it would be almost impossible today to formulate a definition acceptable to all. Our objectives are not clear-cut. Clarifying them may not be necessary, but objectives may become so diffuse that the identity of a field of learning may be lost. The same tools are used in many fields. Chemistry, for instance, is used to train engineers, physicians,

and many others. The objectives identify the field.

Impact of Other Fields

If it be true that a problem recognized is half solved, we might find it worth while to consider some of our problems. For some years past, home economics has been feeling the effects of strong new fields of basic subject matter made available through research—psychology, for example. It has felt, too, the impact of various movements, such as the consumer movement.

Naturally these changes posed many questions. Where should home economics begin and leave off? What specially is the area of learning most suitably classed as home economics? Should we expand and try to take in these new fields and run the risk of becoming superficial or confine ourselves to a quite limited area and run the risk of becoming too narrow? At the university level, if we were even to introduce the students to the areas which we could on many grounds justify, we would quickly find our students having no courses beyond what might well be a sophomore level.

There has been tremendous expansion in the extension field. This has made demands on our subject matter until we are embarrassed by our lack of research to meet the needs of homemaking education carried on for homemakers. Work in high schools has expanded. Vocational home economics has come into being and there has been no satisfactory answer to the question, "How does it differ from other home economics?"

What Is a Home Economist?

Even the question "What is a home economist?" is difficult to answer and perhaps cannot be answered. To my great surprise, when I remarked to one of our graduates, "How does it feel to be a practicing home economist?" she replied, "Oh, I never think of myself as a home economist. I'm a dietitian."

"It's just a point of view—anybody interested in homes is a home economist," says one. "It's someone graduated from a college or university with a major in home economics," says another. "It's someone in a recognized professional field, such as teaching or research or dietetics," says another. "Certainly the people who are chemists or psychologists working in the home economics field are not considered home economists," says still another. "The people who started the movement were chemists and librarians and social workers," it is countered.

A physician is a physician, a dentist a dentist, and there is no dispute, because standards are set up for these professions. Should they be set up for home economists or should that term have a general meaning and the so-called practicing home economists be designated as homemakers, dietitians, teachers, and the rest? We faced the problem in part when we set up membership requirements for the American Home Economics Association, and maybe that is as far as we can or should go. But it bears thinking about, for the way our courses are charted in educational centers depends upon our definition of home economists.

Role of Nutrition, Consumer Education

The fact that nutrition has become so important during the war period has led some people to believe that home economics is likely either to become overweighted with nutrition work or that area may move off and become a department of its own, speaking in terms of college organization, which is representative of the problem. When we recall the importance of food to health and its important role in every household, and the fact that most of our research has been in this field, it is not surprising that it has waxed and grown strong enough to command a great deal of respect and interest.

What knowledge of household commodities we have been able to accumulate through the years suddenly loomed importantly against the background of interest in the plight of the consumer. But our part in the consumer education program is not yet clear.

The Best Professional Way

There are many other examples of our need to stop and consider the best professional way for us to take. There are questions of public policy that we should help to answer. Could human well-being be better served if women were to spend part of their time working outside the home? Should nursery schools be provided for all children? Should there be public feeding for families? If not, should there be greater effort to give nutrition education to our thirty million homemakers at all income levels and show them how to keep their families well nourished through the meals they prepare and serve? How shall we keep their information up to date?

How shall we help homemakers to have a greater sense of social responsibility so that all of them feel as did the one who wrote to one of our women's magazines: "I realize that my home isn't just a cunning little house set in a garden, but rather thousands of homes, and the preservation of all of them means more to me than my family's safety or my own safety."

For what shall we, as home economists, hold ourselves responsible? How can we broaden our contacts and make ourselves effective by co-operation with others?

At the Maryland meeting of the AHEA last June, Irma Gross reported that we do well what we know, but we do not project ourselves much into the future.

With the rapid changes which the war is bringing, the time is surely upon us for projecting ourselves into the future. At first thought, it looks as though most of the world has foresworn all interest in conserving the values represented by home and family life. That is the dark side of the picture. On the bright side is a widespread awakening to the plight into which we have drifted and a determination to study causes and correct mistakes while yet there is time.

What role can home economics play in this rapidly changing scene?

Unquestionably we are becoming more and more interested in the possible contributions of home living to mental health—or to happiness, if you prefer the more familiar term. And we are exploring our assets to see whether what we are already doing could be made to serve two purposes—both physical and mental well-being.

Through the years we have concerned ourselves to a considerable extent with things—with "commodities" if you please—food, clothing, and shelter as they meet physical and aesthetic needs. Perhaps we have overlooked other possibilities. President Wriston of Brown University has made this interesting statement: "Any refusal to make a boy face ideas because ideas are more difficult to grasp than facts, results simply in stuffing him instead of educating him." Have we been doing a little too much stuffing sometimes?

Homes are strongly entrenched and ideas about them are generally conservative. Might we be too conservative for the world of tomorrow? Can we help to discover ideas that will conserve the best of the past and explore the possibilities of the future?

A home economist, it seems to me, is the person who, by whatever route she arrives, has an insight into the wide range of home and family problems, a discriminating appreciation of the importance of homes and families to society, and a fund of sound knowledge of science or the humanities which she purposes to use in the solution of some of these problems.

The importance of physical well-being can scarcely be overemphasized. It is basic to all well-being. But we know, too, that mental well-being is quite as important. However, we know much less about how it can be achieved. We know a little, and that little should be made available to homemakers, and research must be carried on to learn more.

The home stands for much that is not measurable in terms of science. And somehow we are more and more conscious of the limitations of science and more and more appreciative of less tangible values.

Hans Zinsser sums it up by saying, "Thus, thought R. S., science, instead of helping to release mankind from toil, poverty, and war, actually seemed to be accelerating materialism, hatred, and the forces of destruction. And in its fundamental aspects science was demonstrating that, however deeply it might penetrate into the mechanisms of nature and the universe, it would never—alone—solve the ultimate problems or appease that hunger of the spirit, that yearning toward an ethical ideal, which in one form or another, he believed to be an inherent, biological attribute of human beings, as strong as the hungers of the body."[1]

We need to renew our efforts to explore home life for ways of satisfying the fundamental human cravings for security, affection, recognition, and adventure or new experience. Probably we will find that, by recognizing more fully the social and psychological aspects of food, shelter, and clothing, we can find many answers to our problems.

We need to remind ourselves often that although home units are small, the sum total of homes is large, their influence great. In a recent scholarly book written by a professor of philosophy appears this sentence: "Once more in the course of human evolution it appears probable that a turning point in human affairs may be largely dependent on significant developments in family life." Home economics can certainly play a part in determining what these developments will be, but it calls for careful thought and a great deal of hard work.

We must be fully conscious of the fact that human happiness does not consist entirely or even largely of the abundance of one's physical possessions, important though they are, and that it is not enough to be well clothed, well fed, and well housed.

[1] HANS ZINSSER, More truth than poetry. *Atlantic Monthly* (May 1940), p. 641.

What subject matter is chosen for our resident and extension teaching, what projects are chosen for our research, might well have to stand the test of their direct contribution to those aspects of human well-being for which homes are today responsible and for which they seem likely to be responsible within the predictable future.

What Miss Bevier said of Land-Grant colleges more than twenty years ago may well be said of all home economics education efforts:

"They must send forth men and women who shall be eager and able to use their knowledge and skill in the practices and principles of the arts of the home as a means of expression for their best endeavors and so enrich life, not only in material ways but also in the finer and less tangible things of the spirit."[2]

Outward Bound

Home economics is outward bound, and there are evidences that it is thoughtfully streamlining itself and critically examining its cargo and its destination in order that the question "whither bound?" may be answered clearly—the improvement of home and family life by every means at our command. We will not forget that although the man and woman of tomorrow will be world citizens, and probably wage or salary earners in some occupation, they will still depend for much of their happiness upon home and family life.

Home economists have chosen that field for their specialized study. Though the problems are many, we agree with the marine who said that the only difference between the difficult and the impossible is that the impossible takes a little longer time.

[2] ISABEL BEVIER, An address given on the occasion of the Semicentennial Celebration of the Ohio State University (Oct. 14, 1920).

Food Service Supervisors Needed

Illinois welfare institutions need food service supervisors, pay $140 to $185 a month. Deadline for applications is January 14, after which come the examinations. Illinois' promotion and pension system is unusually attractive. Write Illinois State Civil Service Commission, Room 501 Armory, Springfield.

The Professional Attitude

Drop in on any gathering of home economists and you are likely to hear a discussion of "the professional attitude" and whether it has been developed in the rank and file. Two widely known home economists here analyze the subject. Miss Callahan has long been in editorial work: on Better Homes and Gardens, then on Sunset Magazine, and is now a free-lance writer, consultant to foods advertisers, and co-author of "The Home Shift" for publications of war industries. Dr. Justin has been settlement worker, extension specialist, AHEA president, and since 1923 dean of the School of Home Economics at Kansas State College.

As a Businesswoman Sees It

GENEVIEVE CALLAHAN

Listen in on any conversation among executive home economists in any line of work—business, teaching, institution work, or whatever—and you hear complaints about the lack of professional attitude on the part of young employees in the department:

"They don't show enough initiative."

"They put their personal affairs before the demands of their jobs: a luncheon date with a school chum must be kept no matter what comes up at the office."

"They won't buckle down and carry a real load—they want to slide by the easy way, as they did in school." And so on and on.

Yes, it's easy to list complaints. But how often do you hear executives and administrators discuss how to help the young home economist to avoid those common shortcomings? For they are simply shortcomings, due to lack of training somewhere along the educational assembly line, rather than to intentional misdemeanors.

Leaving the Amateur Class

By "professional attitude," just what do we mean?

"The opposite of the amateur attitude" is probably a good enough definition for purposes of this discussion.

The transition from student to worker is not an easy one. How can we who have learned that "life is real, life is earnest," help these girls to leave the amateur class and turn professional in the best sense? How can we expedite their development?

If we have a really professional attitude ourselves (that is, if we feel the urge to be of service to humanity, over and above such efforts as are covered by the pay check), we can help them by giving them concrete advice. As with all effective teaching, it will have to be repeated over and over, in one form or another. Some of it should, of course, have been learned at home. Some of it must be woven into every home economics course in the college catalog. Much of it must be taught on the job, as welding and riveting are taught in shipyards and aircraft plants.

Tips for the Young Worker

Concretely, here are some of the points that successful home economists in business, institution management, teaching, and other lines of work would recommend to every young worker:

(1) Look and act the part of the attractive young professional woman. Say goodbye to the hatless, heelless, hoseless youngster you were on the campus. Put on a bit of dignity, lightly, as you put on make-up. It will make you even more charming.

(2) Begin at once to weave a solid background of information in your chosen field of work. A college course can merely sketch in a

few general outlines; it is up to you to fill in the details. How can you do that? By reading, studying, listening, observing.

The young home economist who voluntarily turns to a book of reference and hunts down the answer to a disturbing problem; who joins the local section of her state home economics association and goes to every meeting; who subscribes to and *reads* the JOURNAL OF HOME ECONOMICS—that girl has the true professional attitude and is bound to grow in her profession. The one who does not develop background is almost certain to remain simply a helper throughout her working life.

Speaking of membership in the American Home Economics Association, the very terms used in describing the two classes of membership mark the difference between the nonprofessional and the professional home economist. In most cases, "junior" members confess themselves still amateurs in their chosen field of work. "Active" members show, by their interest in their Association and its magazine, that they are truly professional persons.

(3) Develop a major interest in some one phase of your work. If you took a general home economics course in college, specialize now, on the job. The surest way to get ahead in any profession is to work toward making yourself an authority in one particular field of work. It may be bread-making; it may be apron-designing or research in vitamin N or M.

(4) Develop interests outside your profession. The most successful professional person is never overprofessional, never narrow and one-sided. Work and play with different groups of people; thus, gradually, you will make yourself known in your community. Don't force things, but don't neglect good opportunities when they come along. With it all, don't be too deadly serious about your work. Have fun in it and out of it!

(5) Don't aspire to be a high-powered executive the first day on the job. Accept the fact that you are a beginner, and that you have much to learn about the ways of business or school or hospital or restaurant administration, and ask for guidance when you need it. If you are an assistant to the burdened head of a home economics department, be on the alert for ways to be really helpful to her. Try to understand some of her problems, and to take some of the load from her shoulders. Don't be so childish as to envy her executive position. When you grow up to that eminence, you'll find that a good many headaches go with the rarefied air!

She Who Plans to Marry

What about the girl who plans to marry in a few years? Should she "bother" to develop the professional attitude?

By all means, say successful homemakers. For home economics is not a "stop-gap" line of work for any girl. It is one profession which carries over without difficult break or adjustment into married life. And a professional (i.e., nonamateurish) attitude toward homemaking not only assures a woman greater success and satisfaction in that most important profession, but more leisure, more freedom on the job.

As an Educator Sees It

MARGARET M. JUSTIN

A professional attitude is accepted as an essential characteristic of all who would serve on the professional level. A person's acceptance or rejection by a professional group with which she wishes to affiliate depends on the extent to which this attitude is evident.

In turn, whole fields or areas are appraised and held in professional esteem or disrepute to the extent that the majority working in them show a professional attitude. The phrase "makes or mars" is not too strong for use in describing its importance; yet definition of the term seems lacking except by inference and suggestion. An attempt at phrasing a tenta-

tive definition of "a professional attitude" might lead to some such statement as this:

A professional attitude is an expression of habitual modes of thought concerning values, situations, and things, indicating that worthy professional goals serve as directives to the individual and determine his actions. Imperfect as is this statement, it may serve here as a point of approach.

The Hippocratic Oath

The medical profession is unique in that it has had for centuries, in the Hippocratic Oath, a cogent and succinct statement of those habitual modes of thought and responses in action which make up the accepted professional attitude of the physician. Medical students are early made aware of the Oath and find its use a highly significant part of the ritual of admission to the ranks of physicians.

Space will not permit quoting the Oath of Hippocrates in full, but it might well be required reading for all interested in professional attitudes. It points to the responsibility of those entering medicine to so employ themselves and direct their interests that the renown of the field may be enhanced; it pledges them to enter houses only "for the benefit of the sick," to abstain from every voluntary act of mischief and corruption, to keep secret that which should be kept secret, and in "purity and holiness" to pass their lives and practice their art.

Oath for Home Economists

Neither time, nor space, nor talent permit an attempt here to phrase an Oath for Home Economists that summarizes the directives from the goals of this field into an adequate statement of professional attitude. However, some points which might be considered in such a statement follow:

(1) The professional attitude of the home economist should be philosophical; it should be rational, expressing concern with "a spirit or method of approaching experience rather than a body of conclusions about experience."

The philosophical attitude has been characterized as (a) questioning, wondering, accepting perplexity as a stimulus rather than as a detour sign; (b) reflective, undogmatic, and unemotional; (c) tolerant, open-minded, and willing to suspend judgment; and (d) speculative, aware of values, seeking the answers to questions in faith that these may be found, being guided by experience and reason, and being ready to yield even cherished beliefs when these are shown untenable.

The presence or lack of a philosophical attitude by the majority of a professional group is regarded as indicative of the extent the curriculum pursued provided the disciplines for a liberal education. The extent to which an individual sustains the philosophical attitude in her own continuing development is, then, a measure of the adequacy of her preparation for membership in a group of professional people from many fields.

(2) The professional attitude of the home economist should be scientific. It should be characterized not only by an insatiable curiosity and a questioning mind but also by an acceptance of the experimental approach, a willingness to focus on those phases of a problem or aspects of a situation that may be attacked and measured experimentally under controlled conditions. There should be a constant intent to relate observed phenomena to basic principles.

Nor is this all. The scientific attitude reflects a sense of responsibility for the social implications of discoveries made and knowledge gained strong enough to serve as a directive to individual and group action.

(3) The professional attitude of the home economist is home and family centered. Her approach has inevitably been through the home responsibilities carried by women as their share in building the culture and civilization of their times. Her professional attitude reflects the directive found in woman's age-old concern with "the continuance of life; its care and protection; its enrichment and fulfillment."

This requires acceptance of woman's racial role, recognition of the importance of satisfying family life to the individual and to society.

There are both challenges and limitations in such a directive. It requires willingness to accept the disciplines of the sciences and arts and courage to focus the powers gained on the solution of significant problems of home and family living. It means keeping "first things first" in courses, curriculums, and research.

(4) The professional attitude of the home economist shows respect for and concern with the profession of which she is a part. This is indicated by a willingness to relate herself affirmatively through organizational and personal effort to safeguard its standing and insure its development. If the profession is characterized by a group loyalty that is above college loyalties or petty personalities its cohesiveness and, hence, its strength, is, in part, assured. Group oneness leads to wise and dispassionate planning and that, in turn, to an expanding field.

(5) Then, because "what you are speaks louder than what you say," the home economist finds herself under a professional directive to express in her personal life not only those familiar attributes of a cultured person but also physical fitness, mental alertness, buoyancy of spirit, and zest in service.

Our Oath will not be easily phrased!

Lean but Healthy Britons

The basic principle of Britain's food control is to provide everyone with a diet adequate to keep him healthy and capable of carrying out his part in the war effort. This necessarily implies making such a diet available at prices within the reach of all. To achieve this the Government has found it necessary to sell a number of the staple foods, including bread, meat, potatoes, and milk, at prices below their actual cost. The present expenditure on food subsidies of this kind amounts to $508,000,000 per annum. . . .

In planning the expansion of agriculture . . . much thought was given to the selection of the particular crops to be grown. Wheat and potatoes were necessary to diminish the dependence upon imported cereals. Space had to be reserved also, however, for green and root vegetables capable of providing vitamins A and D. The amount of each vitamin obtainable per acre was worked out for each vegetable. . . . As regards vitamin A, the carrot was found to be the best crop. . . . Vitamin C supplies also required careful planning. The extensive peacetime imports of fruit, either fresh or canned, were almost entirely stopped in order to release shipping for other purposes . . . [hence steps were] taken to increase the cultivation of green vegetables containing this vitamin. Cabbage, Brussels sprouts, broccoli, spinach, and kale were listed as the best sources of vitamin C, and since these also contain substantial amounts of vitamin A, their consumption serves a double purpose. Increased consumption of potatoes has also helped. . . . Spectacular results in space-saving have been achieved with dehydrated foods [including] eggs and milk. . . .

One fifth of the children attending school now receive a well-balanced midday meal at a low price at school, in addition to their rations. This school feeding scheme is being extended as rapidly as equipment can be obtained. . . . The average diet in Britain today is as healthy as, and in many cases healthier than the prewar diet. It is much less attractive, but this is to a certain extent an advantage as it discourages overeating. Many adults have lost weight since 1939, but to the advantage of their health. . . .—R. WENTWORTH, Britain's Ministry of Food, "Wartime Problems of Vitamins".

Grade Labeling of Canned Foods

MARGARET REID

Dr. Reid, professor of economics at Iowa State College, is at present on leave and is working in Washington, D. C., in the statistical standards division of the Bureau of the Budget. Canadian born, she did her undergraduate work at the University of Manitoba and received her PhD from the University of Chicago. Her latest book, "Food for People," was published in 1943.

GRADE labeling moved into the national spotlight when price stabilizers concluded that control measures to be effective would have to be related in some way to quality. Discussion of the subject—particularly as it concerned canned fruits and vegetables—has often generated more heat than light and has added much confusion of thought.

This article presents the high lights of the situation, examines the present status of voluntary grade labeling, and offers some suggestions for action by those interested in adding to labels further information useful to consumers.

Course of Events

As early as 1941 the Office of Price Administration adopted for its pricing policy the principle of using standardized grades for processed foods. In January 1943 it set up a policy of regional pricing. In so doing it abandoned the practice of setting the ceiling prices of a given processor at his prices as of a certain date adjusted by a formula to allow for his increased costs. Under this plan all products of a specified grade within a given region had the same ceiling price; and the government grading system, which provides three or four grades for most products, was to be used. The OPA also ordered that the grade of each product be stated on the label, justifying the order on the ground that it would make price ceilings much easier to enforce.

Canners Argue Against Grade Labeling

Certain canners vigorously attacked the order. In the attack on grade labeling they were joined by other sellers who objected to the grade labeling of their own products. They contended that grade labeling was unnecessary to price control and was an attempt to bring about reform under cover of war regulations. They also reiterated a charge often made while the Food, Drug, and Cosmetic Act of 1938 was being debated: that college professors and leaders of organized consumer groups were the only persons who wanted grade labeling and that housewives found on traditional labels all the information they really needed.

The argument that grading costs would be excessive was also revived, although costs for canners who have voluntarily done grade labeling in many cases have been less than 0.0001 cent per can.

The charge was also made that grade labeling would eliminate the American system of brand names and with it free enterprise. Yet brand names and trade-marks on canned fruits and vegetables survive in Canada after many years of mandatory grade labeling. Another argument was that mandatory grade labeling would result in processors packing to the lower limit of a grade score since no higher price would be allowed for quality beyond that needed to get the product into a given grade. Insofar as such a practice would develop, it would, of course, be caused by linking a price ceiling with the grade and not by grade labeling as such.

Congressional Hearings

The controversy led to several Congressional committees having hearings on grade labeling, the most extensive being those of the special subcommittee on investigation of restrictions

on brand names and newsprint, of which Lyle H. Boren was chairman.

In its interim report October 27, 1943, the subcommittee stated its conclusion that mandatory grade labeling of processed foods "would constitute a far-reaching change in our methods of food processing and distribution." It pointed out that the Emergency Price Control Act of 1942 authorized such changes "only where it can be demonstrated that they are necessary for the prosecution of the war or that without them effective enforcement of price ceilings would be impossible." From the testimony presented to it, the subcommittee concluded further that "None of these conditions applies in the case of Federal grade labeling or the use of Federal grades in pricing." Testimony on which the report was based "was given by leading representatives of the canning industry, and trade association representatives in the wholesale grocery field, as well as marketing experts, and a member of Congress who represented consumer-group views."[1] The subcommittee states, however, that it "welcomes further testimony on the subject by sponsors of this [grade labeling] system."[2]

Gains for the Opposition

Those opposing grade labeling made a gain when, in May, the OPA withdrew that part of the order requiring the grade to be stated on the label.

The use of grade labeling was further blocked by an amendment to the Emergency Price Control Act of 1942, passed last July. It expressly stated that the Emergency Price Control Act had not authorized "The Administrator [of OPA] to require grade labeling of any commodity . . . to standardize any commodity, unless the Administrator shall determine, with respect to such standardization, that no practicable alternative exists for securing effective price control." The amendment further stated that the Act of 1942 had not authorized the Administrator to fix "maximum prices of different kinds, classes, or types of a commodity which are described in terms of specifications and standards, unless such specifications or standards were, prior to such order, in general use in the trade or industry affected or have previously been promulgated and their use required by some other Government agency."

As to origin of these standards the Price Administrator reported on June 18, 1943, that of the 290 standards provisions which were in the existing price regulations, no less than 159 were accepted trade categories, and 90 of the remaining 131 had been established by other government agencies. Only 41 of the total 290 had been developed by OPA.

The amendment is still open to various interpretations. Although OPA had withdrawn the requirement that the grade be stated on the can for the consumer to see, it still required that the grade be on the wholesale invoice. The community dollar-and-cents retail ceiling prices are listed by brand name. But not all brands coming into a given community have these price ceilings—only the brands with the largest sale volume for that particular community. There is, of course, considerable shifting in the field, with many packers bringing out new brands.

Certain processors now declare that some rulings are an evasion of the intent of the amendment.[3] Arguments center on whether any "practicable alternative exists for securing effective price control."

Because of difference in interpretation of this phase the subcommittee urges that Congress clarify the restrictions intended for mandatory grading and standardization."[4]

The Dilemma

The search for practical ways of checking retail price advances and getting harmony between OPA and industry continues. OPA Price Administrator Bowles on September 13 expressed doubt as to industry's claim that

[1] House Report, No. 808, Pt. 1, 78th Congress, First Session, p. 31.
[2] *Ibid.*, p. 28.
[3] See for example House Report 808, *ibid.*, p. 35.
[4] *Ibid.*, p. 30.

"effective price control in the field of canned goods can be effective without the use of Government grades."[5]

Early in September the Office of Economic Stabilization extended a requirement, first set up by OPA, calling for the grade labeling of certain meats and the use of government grades. Such labeling has had the support of the meat industry from the outset.

Voluntary Grade Labeling

Processors who do grade labeling voluntarily fall into two categories. Those in one group label their products "A-B-C" or "Fancy-Choice-Standard," and have the grading done by anyone they consider competent. They are responsible, however, for seeing that the grades meet the minimum specifications of the government grades.

In the second group are processors who operate their plants with continuous government inspection and whose products carry the "U.S. Grade A" label (or whatever the grade may be) enclosed in a shield and the words: "Packed under continuous inspection by the U. S. Department of Agriculture." Sixty-two companies and 80 plants are now in this program, and a long list of other canners request this grading service. Among those having continuous inspection are processors with well-known brands.

About one-third of the processors having continuous inspection have formed the "U. S. Inspected Foods Educational Service," which sends out materials to increase support for grade labeled canned fruits and vegetables.

Postwar Outlook

Opposition to grade labeling probably will decrease when price ceilings are no longer tied to it. A major argument against grade labeling—that grades tend to put a ceiling on quality and that a processor has no reward for providing important qualities not taken into account in grading—then will not apply. With price ceilings off and the grade stated on the label, price will depend only in part on the grade. The grade will indicate that a minimum quality standard has been met. Through advertising and/or through experience consumers may be convinced that within a grade one certain brand has superior quality and be willing to pay a somewhat higher price for it.

The continued expansion of voluntary grade labeling seems highly probable—and with it an increase in consumer acquaintance with and interest in grade labels. Such voluntary action will make more business groups aware that giving the consumer additional information is a way of promoting wholesome competition and providing rewards for superior products. These practices are at the heart of American enterprise.

Many business groups, including many canners, are in favor of grade labeling. *Advertising Age* on July 12, 1943, states:

> It is possible . . . to find advertising and media men who feel that some sort of compulsory grading program is bound to come, and that therefore all-out opposition to such a program will merely make the public more suspicious of the merits of brands. There are also, as there have always been, some manufacturers and important distributors—and not necessarily only the makers or distributors of the relatively unknown products—who are inclined to look with a sympathetic eye on government grading, or at least to view it with relative unconcern.

An editorial in the *Des Moines Register* on July 19, 1943, provides what seems to this writer a fair statement. Among other things it points out:

> Obviously free enterprise can flourish—(1) with grades alone; (2) with grades and brands supplementing each other; (3) with brands or makes alone.
>
> The manufacturer and seller owe it to the consumer to have as informative a label and advertising as possible. Standard grades are one of the simplest ways of achieving this on a large scale. They need not and have not supplanted brands at all.
>
> In fact, in some fields long dominated by grades, brands have been creeping in for quality stuff,

[5] House Report 808, *ibid.*, p. 36.

above the top grade, with great success in recent years.

Professional buyers also lend their support to grade labeling and without doubt will continue to do so. For example, Heinritz, in an editorial in the August 1943 issue of *Purchasing*, states:

> Trade marks and brands alone do not constitute standards, but they can be much more. Based on known grading, they can be a guarantee of quality plus the embodiment of all those intangibles of manufacturing integrity, experience, and skills, and of merited consumer acceptance. But to deny that first step is to raise suspicion that trade marks are used to conceal rather than to reveal and identify actual qualities and values.

Program for Home Economics

During the war home economists should continue to co-operate wholeheartedly in price control programs and to help inform consumers so that they will buy wisely and not contribute to inflation. They should also give some attention to the postwar period.

Home economists can contribute to grade labeling through education and research and through working with business and professional groups to improve grades and to get them more widely accepted.

Home economists in business—with their professional training and their intimate knowledge of both producer and consumer needs—can do much to eliminate present misunderstandings about grade labeling, which are evident from many of the brochures, editorials, and articles emanating from business concerns.

A vigorous consumer education program will be needed and should be facilitated by the increasing number of grade labeled products in the market. Educators can derive some encouragement from recent studies of consumer interest in grade labels. One study of 1,020 urban housewives showed that although "there is no great 'demand' for the A-B-C- plan . . . it is an idea which could be easily sold to housewives." In a poll conducted by *Parents Magazine* 91 per cent of 809 housewives answered "Yes" to the question "Would you like to be able to buy all commodities by grade?"

Home economists should also contribute through research needed on grade labeling. There is need for systematic comparison of the information provided by so-called descriptive labels and by other labels, for example, those on graded products packed under continuous inspection by the U. S. Department of Agriculture. Claims and counterclaims of the merits and demerits of certain types of information are being made without any basis of fact.

Further research is also urgently needed on the classification of products as to type. It may be, for example, that mature and immature peas should have separate grades and specifications. The scoring systems used for many products should be re-examined to determine to what extent each score takes account of qualities important to consumers and whether weights have a reasonable relationship to consumer preferences. If important qualities have been omitted from the scoring, reasons for such omission should be examined. If objective tests for an important quality are lacking, renewed effort should be made to develop a satisfactory test. It may be that attention should be given to scoring products for certain nutritional values.

Home economists working alone cannot, however, hope for success in developing better standards or in getting them adopted. They must co-operate with other interested groups to achieve their goals.

The AHEA has pointed the way. It has taken an active part in many projects of the American Standards Association, an organization which includes trade associations. It is a charter member of the National Consumer-Retailer Council, in which consumers and retailers work together on merchandizing problems.

A national committee seems called for, but local ones also are needed. If home economists met occasionally with local businessmen, both groups would benefit; consumers would be made aware of business problems and business groups would be more friendly to "reform."

Pretreatment of Foods for Dehydration

BETTY M. WATTS

Mrs. Watts is assistant professor of home economics at the University of California at Berkeley and assistant biochemist in the Agricultural Experiment Station there. She is one of the joint authors also of the research article on page 28.

THE chief types of deterioration which take place in dehydrated foods are oxidative in nature. Dehydrated foods are necessarily exposed to air during the drying period, and unless facilities are available for storage in inert gases, they are surrounded by air also during the storage period. Oxidative enzymes within plant tissues undoubtedly hasten deterioration; but even when such enzymes have been destroyed, slow oxidation occurs.

The defects caused by uncontrolled oxidation vary with the nature of the food. Fruits become discolored and lose ascorbic acid and vitamin A. Vegetables also lose these vitamins, fade or discolor, and develop "hay" and other off odors. Meats become rancid. The pretreatments which have been suggested for preventing such oxidative changes fall under three main headings: heat, sulfur dioxide, and antioxidants.

Use of Heat

The main purpose of a preliminary heating is to destroy oxidative enzymes. Heating has the secondary function of making plant tissues more permeable to water, thus decreasing drying time. Preliminary heating has been widely advocated for vegetables (*1*). In fact, vegetables dried without such treatment often deteriorate to such an extent as to be inedible.

Blanching, Precooking

However, it must be recognized that although properly blanched vegetables are infinitely superior to those dehydrated without pretreatment, even the blanched ones deteriorate more or less rapidly during storage unless packed in nitrogen or otherwise protected from air.

The enzymic reactions involved are not well known, but the blanching should be sufficient to destroy the enzymes catalase and peroxidase. Fortunately, simple qualitative tests which show the presence of these enzymes are available and of great assistance in establishing the optimum time for blanching (*2*).

Steaming is the preferred method of blanching as both palatability and nutritive value are better retained by this process than by scalding in water.

Blanching alone has not proved highly successful when applied to fruits. Discoloration is retarded only slightly by destruction of the enzymes. Furthermore, large fruits, such as peaches and apricots, if well ripened tend to become somewhat mushy during steaming and to flatten out on the drying trays.

Blanching and soaking in hot sugar sirup has been recommended (*3*), but here again the protection is somewhat limited, flavor and soluble nutrients are lost during the drying period, and the treated fruit becomes sticky and difficult to handle.

Commercially dried meats are at present precooked before drying (*4*). However, the purpose of the precooking is not to destroy enzymes but to reduce bacterial growth during the actual drying period. Rancidification of the fat, the chief oxidative change which occurs in meat, is probably not influenced by enzyme action.

Precooked meats dried in this laboratory have invariably turned rancid before the corresponding raw dried samples. The difference was especially marked with pork; the

storage life of raw dried pork averaged several times that of precooked samples.

Use of Sulfur Dioxide

Pretreatment with the fumes of burning sulfur has been standard practice in the dehydration of light-colored fruits for many years. Sulfur dioxide inhibits not only enzyme-catalyzed oxidations but also nonenzymic, autocatalytic oxidations prevalent in many fruits (*5*) and is therefore much more efficient than is heat destruction of enzymes alone. Furthermore, the sulfur acts as an insect repellent and prevents molding and souring during dehydration (*3*).

For Home Drying

Although sulfur boxes can easily be constructed at home, it is undoubtedly more convenient for the housewife who is drying only a small amount of fruit to dip the fruit in a solution of sodium sulfite or potassium metabisulfite. Unfortunately, the sulfite does not readily penetrate cold, untreated fruit.

When peach halves were treated in this laboratory according to directions in the latest USDA pamphlet (*6*), which calls for a 15-minute soaking in a solution containing 3½ tablespoons potassium metabisulfite or sodium sulfite per gallon, the sulfur content of the treated fruit was only 110 parts per million whereas 1000 to 3000 ppm are required for adequate preservation. The dipped fruit discolored practically as much during drying as that which was untreated. In order to get adequate penetration, it was necessary to peel the fruit, presteam for 10 minutes, or blanch in hot sugar sirup for 15 minutes before dipping. It was also found advantageous to increase the concentration of the sulfite to approximately 2 per cent. Under these conditions the fruit absorbed sufficient sulfite in 2 to 5 minutes.

The use of sulfur for the pretreatment of vegetables offers possibilities which need further exploration (*7*). String beans split lengthwise, blanched 10 minutes in steam and then dipped for 15 seconds in 1 per cent sulfite solution, contained 2000 to 3000 ppm SO_2, showed a much higher vitamin C retention, and were rated higher on palatability than similar beans pretreated only by blanching. A commercial sample of sulfited dehydrated cabbage rated very much higher in palatability and vitamin C than blanched commercial samples tested (*8*).

Drawbacks

Probably sulfur treatment offers the same advantages in vegetable as in fruit dehydration. The chief drawback is the difficulty of obtaining the proper concentration of sulfur. Vegetables vary greatly in size and shape, in the permeability of their tissues, and in the amount of sulfite solution retained through incomplete drainage after dipping. Much work is required before adequate directions can be drawn up. Also the well-known destructive action of sulfur dioxide on thiamin must be balanced against its preservative action on ascorbic acid and vitamin A.

Fruits and vegetables which have absorbed more than 3000 ppm of sulfur dioxide are usually impaired in flavor unless the sulfur can be driven off during cooking. Rather unexpectedly it has been found that boiling in a covered pan drives off excess sulfur in about one-half the time required in an open pan (*9*).

Use of Antioxidants

Antioxidants known to retard rancidity in fats have been applied in the dehydration of meats. Gum guaiac has been recommended for the protection of pork fat (*10*), but all of the samples of guaiac which could be obtained in this laboratory imparted a definite unpleasant taste when used in concentrations of 0.1 per cent of the weight of meat, while lower concentrations were less effective in preventing rancidity than were other antioxidants tried. Combinations of guaiac and phosphoric acid are now being tried.

Many cereals and oil-bearing seeds are known to have antioxidant activity. Soybeans have been reported to be particularly

effective (*11*) and have given the best results of any antioxidant so far tried in the dehydration of pork in this laboratory. Pork combined with corn-meal and soybean flour and dehydrated in the form of cooked scrapple made an excellent product which kept much longer than cooked pork alone.

The use of antioxidants in the dehydration of fruits and vegetables to prevent oxidative changes other than rancidity is still an unexplored field offering most interesting possibilities.

References

1. CRUESS, W. V., and MRAK, E. M. What's known today about dehydrating vegetables. *Food Ind.* **14** (1942), No. 3, p. 48, and No. 4, p. 57.
2. CRUESS, W. V., and JOSLYN, M. A. Significance of enzyme reaction to dehydration of vegetables. *Proc. Inst. Food Tech.* (1942), pp. 99–110.
3. CRUESS, W. V. Experiments on drying unsulfured apricots and peaches. *Fruit Products J.* **21** (1942), pp. 135, 157.
4. STATELER, E. S. Meat dehydration on a plant scale. *Food Ind.* **14,** No. 9 (1942), p. 47.
5. JOSLYN, M. A. Color retention in fruit products. *Ind. Eng. Chem.* **33** (1941), pp. 308–314.
6. BUREAU OF HUMAN NUTRITION AND HOME ECONOMICS, USDA. Oven Drying. AWI 59 (Aug. 1943).
7. MACKINNEY, G., FRIAR, H. F., and BALOG, E. Sulfured dehydrated vegetables. *Fruit Products J.* **22** (1943), p. 294.
8. Unpublished results, Department of Home Economics, University of California.
9. WOODRUFF, J. G., and CECIL, S. R. Preserving fruits with sulfur dioxide solution. *Fruit Products J.* **22** (1943), pp. 132–135.
10. MITCHELL, H. S., and BLACK, H. C. Stabilization of fats and fatty foods. *Baker's Digest* **17,** No. 2 (1943), p. 22.
11. MUSHER, S. Cereals and seeds inhibit rancidity in lard. *Food Ind.* **7** (1935), p. 167.

A Cause of Childless Marriages

Light on the tragedy of childless marriages and babies dead before they taste the first breath of life is provided by a new British research. . . .

A blood factor known as the Rhesus factor, or Rh . . . is the cause of the tragedy. It is a harmless blood factor in itself; in fact it is contained in the blood of 85 out of every hundred persons. But if the blood containing this factor is mixed with blood not containing it, then difficulties arise. In the tragic cases of Rh-caused stillbirth it is really the mother's own blood that kills the child . . . there must be a little mingling of the blood of the unborn baby with that of the mother. When the baby has inherited from the father the Rh factor and the mother has non-Rh blood, then the blood of the two cannot mingle safely. If the child is the first baby and the mother has not previously had a blood transfusion with Rh blood then the baby may come into the world alive although he is likely to have a bad case of jaundice.

By the time the second baby comes along, however, the mother has built up in her blood a resistance to the Rh factor. Now a mixing of the Rh blood with hers will probably mean death to the infant. . . .

On the average in the United States, 13 out of every hundred marriages are between a father with Rh blood and a mother who has no Rh. . . . When the father with Rh blood is the child of parents both of whom had Rh blood, then the marriage has a poor chance of being blessed with more than one child. If, however, the father with Rh blood has inherited the non-Rh gene, there is a fifty-fifty chance that any child of his will be free from the Rh factor, so that this will not be a barrier to safe birth. Such husbands . . . can be found by the new British test; 60% of Rh husbands on the average are of this type.—"New Blood Test," *Science News Letter*, November 27, 1943.

Commercial Dehydrated Foods

KENNETH T. FARRELL

Dr. Farrell came to the USDA in 1941 after having been food technologist for a food packing company and chief chemist for a dehydration firm. He is chief of the Field Service Section, Fruit and Vegetable Branch, handling technical problems of the food processing industry. This article is not an official USDA pronouncement but a frank statement of the situation by an authority.

TO write an interesting article on dehydration today is a task that only an optimist would undertake. In the first place, it is a dry subject and must be treated as such, and second, the industry is considered a "war baby" and therefore should be handled with the utmost care.

Since 80 per cent of the food we consume is perishable, it is logical that commercially processed foods play an important role in our daily diet. Great progress has been made in promoting human welfare by recent advances in food technology, but perhaps the most astounding advances have been made in a phase of food preservation that is not too well known by the public—dehydration.

Drying is the oldest known means of food preservation, but it is only within the last five years that any effort has been made to improve antiquated drying methods.

USDA Work in the Field

Two years before this country entered the war, the Agricultural Research Administration in the Department of Agriculture began investigating food dehydration methods and how they could be improved. Emphasis was on crop varieties, crop culture, geographical locations, climate conditions, methods of preparing products, and dehydration techniques.

As a result, when needs for dehydrated fruits and vegetables for military purposes began to increase early in 1942, the Department of Agriculture was ready to assist the food industry in a vast expansion program.

An interdepartmental dehydration committee of technical and economic experts from the Department of Agriculture, the War Production Board, and the Office of the Quartermaster General handled applications of dehydration plants for priorities and approved or rejected these applications on the basis of past experience in food processing, convertibility of existing facilities, availability of suitable raw material, and the ability of the processor to finance the project privately.

Dehydration schools were held for food processors, and a field service section was created in the USDA to assist the plants with their technical problems. All these actions were important if our armed forces and those of our Allies were to receive the best possible finished product and if the industry were to survive in the postwar era.

In little over a year, the number of dehydrated vegetable facilities has been increased from 18 to 160 with a corresponding increase in production capacity from 20 million dry pounds to 270 million dry pounds, which is equivalent in fresh production to 50 per cent of the total 1943 canned vegetable pack. Such production in a relatively new industry is remarkable and was attained not only because of an immediate market for the goods but because many processors were convinced that dehydration was here to stay and they wanted to be "in" at the beginning.

Reactions of Processors, Military Men

It is safe to say that at least half of these processors have been disappointed for one reason or another: price ceilings, black markets, delayed deliveries on equipment, inade-

quate labor, and inexperienced personnel. Such a reaction and such conditions are to be expected in a rapid industrial expansion of this kind. However, plants which have sufficient capital, trained personnel, and quality control laboratories and which are near the source of suitable raw material should advance, survive the postwar transition period, and proceed to produce a product that eventually will be in every home in America.

Unfavorable comments drifting back from the battle front can usually be traced to improper storage conditions in transit or to inadequate reconstitution and seasoning. Dehydrated foods bought by the government for shipment abroad must meet rigid specifications. However, if the product is held for a few months in a warehouse, then stored for a long time next to the boiler room in the hold of a ship where temperatures range from 120° to 150° F, and then floated ashore with the tide to be buried later in hot desert sands for many weeks before it is finally consumed—what food, regardless of its original quality, could withstand these conditions? Dehydrated foods have been subjected to the worst possible conditions—little wonder, therefore, that some comments are unfavorable.

Lengthened Shelf Life

Within the last two years, the "shelf life" of dehydrated vegetables has been increased from 2 to 22 months without noticeable deterioration. Blanching, sulfiting, compressing, and newer methods of packaging have all contributed to this extension of storage life.

The necessity of blanching is an old story now and needs no further comment. The need for sulfiting, on the other hand, is relatively new. The process not only lengthens the storage life of the product but increases the natural color and vitamin C retention during processing and subsequent storage. Compression offsets the disadvantages of low-density packaging, fragility of product, and necessity for gas packing as well as reduces tremendously packaging cost, shipping space, and man-hours of handling containers.

Though laboratory results are not available yet, it is reasonable to expect that compressed dehydrated vegetables will not deteriorate as rapidly in air as the corresponding loose material. In most of our tests, the compressed dehydrated vegetables reconstitute without too much difficulty, and the other factors of quality are in every way equal to the corresponding uncompressed material.

Of Things to Come

If as much research in food preparation, dehydration, and packaging takes place in the next few years as has taken place in the last few, it is reasonable to expect that vegetables will be harvested, dehydrated, and shipped by cargo plane from the ideal growing areas to any city in the USA within 24 hours.

It is also reasonable to expect that nutritive values of dehydrated vegetables will be as good as, or better than, that of fresh products bought in retail stores, for vitamins and flavor will be "sealed in." When government requirements for dehydrated vegetables are reduced, we will find one- or two-pound packages of dehydrated white potatoes, sweet potatoes, carrots, beets, rutabagas, and onions to supplement, but not displace, other processed vegetables. The word supplement is used advisedly because these vegetables, except for carrots and beets, are not commonly processed by any other method.

Without doubt, the most popular dehydrated vegetable will be white potatoes—sold in powdered, riced, diced, sliced, and Julienne form. The powdered and riced forms, upon the addition of salted boiling water, whip up almost instantly into a creamy mashed potato. The other forms—and this statement applies to the other vegetables except onions—require from 20 to 30 minutes for reconstitution and cooking.

The American housewife must be educated in the use and value of dehydrated vegetables. Once she becomes familiar with their low cost, easy preparation, and high quality, she will welcome dehydrated vegetables and wonder why it took a war to develop an industry that has always been needed.

After the War—Full Consumption

HELEN R. JETER

Dr. Jeter is head of the family economics division, Bureau of Human Nutrition and Home Economics, and represents that agency in the USDA's interbureau committee on postwar programs.

WHAT we want is not complicated .... When war is done, the drive for tanks must become a drive for houses. The drive for food to prevent the enemy from starving us must become a drive for food to satisfy the needs of all people in all countries .... These are only some of the basic things we want. It is not beyond our technical or spiritual capacity to have them.—JOHN G. WINANT.

Planning for the kind of life we want after the war is not the exclusive function of any one agency or branch of the government. In a democracy it is not exclusively a governmental function. It is the right and duty of every citizen.

To plan is not merely to draw a blueprint of an ideal system that we may hope to make real through legislation. It is also to understand how and why events take place and how they may be anticipated or controlled.

In the kind of planning that requires education and joint discussion, the U. S. Department of Agriculture has been participating with farm people, farm organizations, state extension services, and Land-Grant colleges for five decades. Since early in 1941 this planning has looked toward the postwar period. From the beginning, agricultural postwar planning has emphasized long-time objectives rather than immediate plans for putting unemployed people to work. The idea that agriculture, labor, and industry are interdependent has grown. Thus, consumption has had a conspicuous place in the discussion.

A USDA conference held in Milwaukee in July 1943 outlined agricultural goals. The first was "adequate food and fiber for all at prices fair to both consumers and producers." Another was parity income for farmers that should "take into account the interest of the nation in agriculture as well as that of the farm family." A third was "better living" for rural young people—an equal chance at health, at educational and recreational facilities, and at vocational opportunities.

The nation's goal for postwar industry is full employment. But full production and full employment will be impossible unless a high level of consumption is maintained; unless better distribution of purchasing power spreads effective demand for goods and services over an ever larger part of the world.

Goals for This Generation

The idea of consumption as the goal of production and that of agriculture as a way of life—not merely a means of earning a living—challenged the Bureau of Human Nutrition and Home Economics in the USDA to describe a desirable level of consumption for farm families. The Bureau's contribution toward discussion of postwar programs is a statement on "Long-Time Objectives for Farm Family Living." This statement defines a level of living that is considerably above the present average situation but one that should be possible of achievement by every farm family in this country within the lifetime of this generation. The following excerpts are from the introduction:

> The long-time objective for rural population as for urban population is improvement in levels of living. The economic system must make possible for all farm families health, efficiency, self-respect, security, and happiness. Not all have had the means in the past to purchase even a minimum of decency and health. For the future all must have these and more. They must have a balance between work and leisure; sufficient income to make

work efficient and leisure enjoyable; and freedom of choice among various ways of living.

Resources for production of sufficient goods to meet this standard will be available; purchasing power and the distribution necessary for full consumption must be provided.

This discussion of goals for farm family living is based on certain assumptions: (1) that the typical farm family lives on a family-sized farm; (2) that the produce of the farm can be sold at prices that will provide money income to maintain the farm business and to secure goods and services for family living; (3) that goods and services for the farm family can be obtained in adequate quantity and quality at prices within its ability to pay.

The fundamental needs of family living—the objects to which people devote the money that they receive—are food, a home, clothing, health, education, recreation, personal care, and security. Transportation and communication may be incidental to earning a living and also a means of enjoyment. Ten goals, therefore, are to be achieved for farm family living.

The ten goals are:

1. A Nutritionally Adequate Diet

Every family has a right to a diet that meets its physiological needs. The goal has been defined by the National Research Council in accordance with experimental evidence and in terms of recommended amounts of food energy, protein, minerals, and vitamins. As research and clinical workers add to nutrition knowledge, it may be necessary to revise the diet patterns and define new goals.

Reliable food and nutrition information—now given to many farm families by specialists in state extension services and other agencies—should be available to all farm families. It might be provided also through schools and through the services of nutrition workers at centrally located health stations. All children should receive adequate school lunches served on a nonprofit basis.

The importance of home food-production with its opportunity of supplying at low cost the quantities of food most needed in a generous diet throughout the year should be recognized. Not only does a well-designed, home food-production plan release money income for the purchase of items other than food, but it is likely to result in a better diet than if all food supplies are purchased.

2. A House That Can Be Made into a Home

Every farm family has a right to the kind of house that will make a home. This is something more than four walls and a roof. It is a place arranged for family living—for work, for health, for companionship; for aesthetic, intellectual, and spiritual growth.

For long-time planning, the farm home should meet the following standards as to site, construction, arrangement for family living, and furnishings and equipment:

Site—Well-drained land with
- Sewage disposal away from house
- Good water supply piped indoors with running hot and cold water in kitchen and bathroom

Construction—Built on raised foundation with
- Tight roof, floors, and walls
- Natural lighting and ventilation from windows and doors
- Screens for windows and doors
- Electrical wiring and fixtures
- Central heater with automatic adjustment

Arrangement for family living—At least one room per person
- Living room
- Dining space
- Kitchen with sink and drain, storage cabinets, shelves, and working surface
- At least three bedrooms, each with closet
- Work porch or workroom, with storage space
- Bathroom with toilet, wash basin, shower or tub

Furnishings and equipment
- For preparation of food
  - Cook stove, electric or gas
  - Mechanical refrigerator
  - Electric dishwasher
  - Utensils for preparing and keeping food
  - Electric toaster and other appliances
- For preservation of food
  - Equipment for canning, dehydrating, freezing
  - Equipment and space for storage
- For serving meals
  - Dishes, flatware, napkins, table, chairs

For laundry and cleaning
  Electric washing machine, iron, ironing machine
  Vacuum cleaner and accessories
For home sewing
  Electric sewing machine
For sleeping
  Comfortable beds and bedding
For recreation and companionship
  Living room furniture
For infants and preschool children
  Nursery equipment, including crib, high chair, play pen, small chair and table, toilet seat, bathing equipment

3. Clothing for Protection and Enjoyment

Every farm family has a right to all the clothing necessary to meet the demands of the life its members lead. The primary purposes of clothing are to protect the body against climate or injury and the mind against criticism, and to furnish aesthetic satisfactions. Avoidance of criticism may range from wearing the minimum kind and quantity of clothing that civilization demands to following the latest fashions. Somewhere between these two extremes, the future farm family should find clothing to meet these needs. Clothing to give adequate protection to the body should ensure year-round comfort.

If there is to be balance between work and leisure, more consideration should be given to the family's recreational and social needs and to community habits. Clothes should be suitable for the occasion and acceptable to the group, so that the wearer may participate with confidence in church, school, and community activities. Clothing should be adequate to give the wearer assurance not only in his own community but in others to which his occupation and recreation may lead him.

The clothing industry should produce clothes that are more useful and versatile, require a minimum of care, and give a reasonable amount of wear. They should combine well-proportioned lines and skillfully blended colors. Fashion should not influence clothes to the extent that good judgment and self-expression are lost and wearable clothes discarded. Rather, an adequate number of well-fitted, comfortable, and attractive garments that are gratifying to the wearer and that may be suited to the occasion through a change of accessories should be the aim.

After the war new materials with desirable draping and wearing qualities will doubtless be produced. These materials as well as those tested by time and tradition should be available to the farm family. Production of clothing needed to equip the family most efficiently for the kind of life it is expected to lead should be part of the postwar program for full production and full consumption.

4. Health for Every Member of the Family

Every farm family should have opportunity for adequate medical care through the combined services of physicians, nurses, dentists, hospitals, health centers, and public health agencies. Emphasis should be placed on preventive care—routine health examinations and immunization against disease.

The amount of medical care to be made available should be based on need for services as determined by scientific standards such as the recommendations of the Committee on Cost of Medical Care, not by demand for services as expressed in ability and willingness to pay.

Medical care should be made available either through pooling funds on a voluntary prepayment basis or through taxation, or through a combination of the two. In areas unable to support a hospital and other health facilities, the state and, if necessary, the federal government should contribute to their construction and maintenance.

The local government, with the state, should also furnish farm families with adequate protective services through full-time public health units concerned with maternity and child hygiene, school health supervision, popular health instruction, communicable disease control, food and milk control, sanitation, vital statistics, and laboratory service.

5. Education for a Democratic Society

Children of farm families should have access to free education in modern, well-equipped schools. The curriculum should be designed to prepare children for citizenship in a democracy and life in a modern age. Provision should be made for handicapped children and for adult education.

The school district should be large enough to permit economy of operation, using a system of school busses if necessary. The state and, if need be, the federal government should share in the costs of the system. Decisions upon educational policy should be left to the local community, but expert technical aid in planning should be available. The number and quality of teachers should be sufficient to insure attention to individual needs.

6. Recreation for Better Living

Farm families should have available a diversity of recreational opportunity to supplement other activities of daily living and to contribute to the creation of well-rounded personalities. They should have access to the usual forms of paid recreation and should have means of recreation at home, including musical instruments. Government agencies should provide libraries, playgrounds, and parks. Newspapers, books, magazines, and phonograph records should be available. Community meeting places should be provided for social and cultural activities. Farm families should have leisure for the enjoyment of recreation.

7. Personal Cleanliness and Good Grooming

Farm families should have those goods and services necessary for personal cleanliness and the maintenance of personal morale through conforming to the community's standards of good grooming.

8. Transportation for Business, Pleasure

Every farm family living in open country should have an automobile in satisfactory operating condition and sufficient gasoline, oil, and other operating facilities at low enough cost to permit driving for family business and pleasure. Rural roads should be part of a well-integrated highway system and should be well maintained.

9. Communication with Others

Every farm family should have a telephone and radio.

10. Economic Security for the Family

The farm family should have security against the risks of production, such as loss of crops and property through fire, storms, and droughts. Such security has been provided to some extent through public and private insurance schemes financed partly from current farm income. The farm family should also have security against loss of income during economic depression, disability, and old age, such as that provided for industrial workers under the Social Security Act. A complete system of social security for the families of farm operators and farm laborers is a long-time goal of agriculture in the postwar world.

Role of Home Economists

Home economists throughout the country are urged to examine these goals for farm family living, to measure them against existing conditions in their respective regions, to question their practicability, and to assist in the kind of educational effort that is necessary if conditions are to be provided that make rising levels of living possible.

Experience suggests some practical steps in the direction of these goals. Wartime savings may be turned into better housing to meet one of the greatest lacks in present farm living. Group medical care may be extended in accordance with successful experience and with the teaching of wartime economy in use of resources. Economic security for farm families may become a reality under present proposals for broadening the scope of the Social Security Act.

In Short . . .

Food for Freedom

BENJAMIN R. ANDREWS
Teachers College, Columbia University

The National Consumers Food Conference, sponsored by a new organization, Food for Freedom, Inc., met at Cleveland October 27 and 28 under the chairmanship of Leon Henderson, who is also acting as technical adviser to the organization. The program included addresses by outstanding national figures, including Vice-President Wallace, and a series of round tables in which many home economists participated.

Food for Freedom is self-described as "an independent nonprofit organization of individuals and representatives of peoples' groups." Mrs. Dwight W. Morrow is chairman; James G. Patton, president of Farmers Union, is vice-chairman; and William Allan Neilson, president emeritus of Smith College, is chairman of the board of directors, which also includes Dr. John D. Black of Harvard, Mrs. Henry Goddard Leach, the Rt. Rev. Mgr. John O'Grady, and Matthew Woll. Headquarters is at 1707 H Street, N.W., Washington, D. C.

Organization Platform

Food for Freedom "has been organized in the conviction that food can shorten the war, lay foundations for the peace, and be one preventive of chaos, revolution, and counter-revolution." It intends to rally support outside of the government for the following objectives: to supply to the public clear, current information as to food needs and food production; to stimulate greater food production and more efficient planning and marketing by methods equitable to all; to build food stocks needed for the fighting forces, for civilians, and for Lend-Lease, including emergency feeding of peoples we are pledged to liberate; to conserve food, adjust food habits, and utilize food more effectively to maintain nutrition standards needed here and abroad for maximum production; to manage food supplies so as to prevent inflation and forestall economic collapse; to provide generous American aid, in our own self-interest, in the foreign relief and rehabilitation program of the United Nations; and to co-operate in long-range agricultural planning based on international agreements.

Through the Cleveland conference and a subsequent food production conference and through local Food for Freedom groups, the organization aims to supply "to the citizen information as to how, in his home, on his farm, and in his community, he can help to make food one of our most powerful weapons in defeating the Axis and in fashioning a democratic and durable peace."

Cleveland Speakers

The conference opened with Mrs. Morrow's statement of its purpose. Professor Theodore Schultz, University of Chicago, gave the keynote address in which he laid down principles for use of food as an instrument of democracy: producing food chiefly on family-type farms and within a framework of consumer choices; providing basic foods for all; giving precedence, in the clash of food-interest groups, to the welfare of society; making such subsidies as are used contribute to maximum production; giving the community of nations a complementary position in food programs alongside local and national groups.

President Patton of the Farmers Union called for over-all planning in food production; urged maintenance of FSA, repeal of Public Law 45 (restricting movement of farm labor) and substitution of a positive farm-labor training and distribution program, and use of food production agreements with individual farmers. Victor Reuther of the United Automobile Workers war policy committee pointed out that conversion of the automobile industry to war production had been hastened by pressure which the workers brought upon public opinion and upon management, and called for

similar group action on the part of consumers.

Besides these and other addresses, seven round-table groups with chairmen and consultants worked on specific issues. Margaret Reid was chairman of one group considering war and postwar use of foods. Among recommendations made by these groups were: that food prices be held and grade labeling and selective subsidies be used; that more industrial and school lunchrooms be set up; that home food production be expanded; and that farmers be assured adequate prices, credit, and crop insurance.

Appraisal

The Cleveland conference seemed to the writer significant as illustrating the American democratic way. There is great value for home economists in attending conferences on issues related to their fields, which bring together workers from other fields. We need to know the point of view of labor organizations, many of which now employ highly-trained economists and might well have home economists on their staffs; similarly we should know the farm organizations and their programs. There are fields of service for home economists here as there are in business.

Farm Women's Market

WILMA A. STANLEY
Extension Service
Roane County, Tennessee

Can farm women's markets be successful?

Yes, emphatically declare 22 women of a Tennessee home demonstration club. They set up their market in an unused building in Harriman, a town of 6,000 persons, 50 miles west of Knoxville, and among them in 10 market days held before fall this year sold $1,007.39 worth of produce. The highest individual seller attended 9 markets and took in $194.15; the second highest saleswoman went to 7 markets and took in $114.01. Participation in the 10 markets averaged 7.7 women; the range was from 3 to 14.

Best Sellers

Food sold falls into several classes: poultry and eggs, butter and cheese, vegetables and fruits, baked products, salads, and canned foods. Best sellers have been chickens, eggs, butter, cottage cheese, and cakes; but vegetables and fruits have run a close race. Potato and chicken salad, homemade bread, jellies, jams, and fruit juices have also been good sellers. Demand is double the supply, and shoppers often are at the market with money and ration books ready before the farm women arrive. During the 10 markets there was only one unpleasant incident—one woman sold a guinea and said it was a chicken.

At the monthly markets held throughout the winter, especially at the pre-Thanksgiving and pre-Christmas ones, handicraft is also sold.

Setting Prices, Footing Bills

Prices set for produce are the same as those in the local stores. The home demonstration agent or the market chairman on the afternoon before the market is held checks prices in several stores, and where prices differ strikes an average. These prices are then posted on a board for both sellers and buyers to see.

Harriman stores have co-operated wholeheartedly with the farm women—except for one clerk in one store—as they already have an excess of business.

Rent for the building is $1.50 a day. Products are displayed on card tables brought by the women. Each who sells $5 worth or more pays to the chairman a 25-cent commission; each one selling less than $5 pays only 10 cents. From this fund the market chairman pays the rent and buys paper bags, oilpaper, trays, and ice for the women to use as needed. Total expense for the 10 markets was $20.93.

Market History

The market was started in 1941 with three sales days—before Easter, Thanksgiving, and Christmas—under the guidance of Isadora

Williams, market specialist of the Agricultural Extension Service, University of Tennessee. Credit for success of the market goes primarily to her and Mrs. R. C. Hester, market chairman.

Three similar sales days were held in 1942. The 1943 Easter market was highly successful because of rationing. The other 9 markets were held on successive Saturdays during the summer; then dry weather caused failure of vegetable crops, prevented starting fall gardens, and ended the markets except for once a month during the fall.

The 58,000-acre war industry which mushroomed up in Roane County and an adjoining county and brought in thousands of workers intensified local need for such a market. Many farm homes are filled with boarders who eat the surplus produce. Other farm homes are on the routes to the "Area" (as the war plant is called) and workers buy their surplus. The women who sold in the Harriman market had no other outlet for their extra produce.

ADA MEETING

HELEN EVERETT
American Red Cross

"Give us this day our daily bread" is no longer merely a line from a prayer; it voices the appeal of a large part of mankind. This was the conclusion of delegates after listening to speakers at the War Conference of the American Dietetic Association in Pittsburgh, October 19 to 22.

Representatives from Norway, Greece, and Yugoslavia spoke on the desperate food conditions in their countries and the heroism of their people. Helen S. Mitchell, chief nutritionist, Office of Foreign Relief and Rehabilitation Operations, told what is being done and planned for supplementing the diets of European people.

W. D. Robinson of Vanderbilt University, Lydia J. Roberts of the University of Chicago, and Marjorie M. Heseltine of the U. S. Children's Bureau reported on food and nutritional deficiencies in Latin America, Puerto Rico, and South America.

Secretary of Agriculture Claude R. Wickard, in his talk on "Freedom from Want," emphasized the need for more equal distribution of food and for a school lunch program which would make it possible for every child to have at least one adequate meal daily. British people, under rationing, are well fed, with no widespread signs of nutritional deficiencies.

Wartime Problems, Postwar Trends

Problems of Army feeding were discussed by Mary I. Barber, food consultant to the Secretary of War. Jessie W. Harris in an open meeting discussed the wise conservation of food, emphasized the values of rationing, and pointed out that it is unpatriotic to use all one's own points and then eat out at a restaurant, thus consuming more than one's share of the nation's food.

"Trends in Postwar Food and Nutrition" are further enrichment of cereals, new concepts as to protein requirements and new sources of protein, according to Dr. Frank L. Gunderson, executive secretary of the food and nutrition board, National Research Council. Findings which indicate that only eight amino acids are nutritionally essential are forcing modification of tables of food requirements.

Among other vital problems given attention at the conference were nutrition in industry, community nutrition, availability of food supplies, child nutrition, rationing and the school lunch, and the hospital labor shortage which is being met in part by the program of the American Red Cross in training Volunteer Dietitian's Aides.

In this, the twenty-sixth year of the American Dietetic Association, dietitians are solving food problems, not only in our own country but also in the entire war-torn world.

Comment . . .

Prologue to Action

A Russian general in Washington, D. C., some time ago representing his country in meetings called to handle war problems is reported finally to have reached the end of his patience and to have walked out exclaiming, "Conferences! *Conferences*!! **Conferences**!!! And my people are dying!"

Incidence of conference fever runs pretty high in these United States, probably higher than among other peoples, since we're more highly organized into clubs and associations. We attend meetings. We listen to heart-stirring talks on problems of families and of children. We have the urge to do something to improve conditions. But back on the job, we're likely to drop into the well-worn professional groove and to end by doing nothing to translate into action the noble impulses we entertained at the meeting.

The Mississippi Home Economics Association when it met last October shrewdly set up machinery to ensure carrying through into action the altruistic impulses generated at the annual convention. Its program of work for 1943–44 is comprehensive, but realistic.

Nutrition Work, School Lunches

One important piece of machinery utilized for carrying out this program of work is the county nutrition committee. Home economists in each county were asked to divide up and allocate nutrition activities: working in food and nutrition centers, teaching wherever needed the 5-clock-hour course in nutrition worked out by a committee of the MHEA last spring or some alternative course, educating elementary school teachers as to the fundamentals of nutrition, setting up nutrition clinics.

As for the school lunch program, the MHEA has for its goal for every school child a hot school lunch, supported by taxation just as is that child's education. Already Mississippi has done more than have most states along this line. As of mid-November, 598,139 children (a third of the state's school enrollment) were getting the school lunch. This in spite of the fact that no state funds can be used for the purpose—that all financing must be done locally.

Of the $1,488,000 of federal funds allocated to that state, $800,000 had been encumbered by November 15. MHEA members are working to expand the school lunch program by securing the sponsorship needed to make use of the remaining $688,000. (Food Distribution Administration allocates money according to need, enrollment, and past participation in the program.)

Nursery Schools, Housing, Conservation

The nursery school, housing, and conservation of food and clothing, are among other areas marked out for special activity—and the agency with which home economists are to work is designated.

December 3, Ellen H. Richards' birthday, was set as a date for special conservation programs. Here again by setting a special time for a job, the MHEA was guarding against the very human tendency to procrastinate.

Each home economist was asked to take personal responsibility for providing young people with guidance as to vocations and for helping organize a local speakers' bureau through which to bring community understanding of and compliance with OPA's price orders.

Legislative Program

Further, Mississippi's home economists are not afraid of "social action."

The MHEA's state legislative program sets up eight specific objectives: a workmen's compensation law; enrichment of all white flour, bolted meal, white bread, and margarine sold in the state; improved working conditions and shorter working hours for children; repeal

of old marriage laws so as to reduce juvenile marriages; pensions and higher salaries for teachers; state institutions for mental diseases divorced from political control; increased aid for the aged, the needy blind, and dependent children, and for child welfare.

And in order to achieve these goals the more quickly MHEA is working with other organizations of the state through a co-ordinating legislative council.

The MHEA also voted to take action on federal legislation recommended by the AHEA, and particularly to support measures to remove the tax on margarine.

Part of the MHEA program is to get the co-operation of other organizations for more and better kept rest rooms for both whites and Negroes and for improved sanitary conditions in public eating places. An educational program to acquaint the public with state sanitation laws is being undertaken as ground work for getting these laws enforced.

Memberships, Postwar Planning

Vigorous measures to strengthen the state and the national home economics associations have also been taken: through publicizing their programs of work, through getting individual members to send to the state president suggestions for making the Association more helpful, and through building up active membership both in the MHEA and in the AHEA. The MHEA ranked seventeenth among state associations last year in number of active members—is working effectively this year to increase the number of actives.

Postwar planning is included in the program of work, with emphasis on the school lunch, family buying so planned as not to be inflationary, postwar adjustments of soldiers and war workers, and interracial relations.

Those who bemoan the decline of the professional spirit among home economists, who charge that home economists don't raise their eyes from their own jobs, have in Mississippi exhibit A to prove the contrary.

There a conference or a convention is prologue to action.

Home Canning

Now that the 1944 home canning season is but a month away for many parts of the nation, it's time to take stock of food preservation methods as practiced in 1943.

There's both sunlight and shadow in the picture. Never in all our history have such huge quantities of food been preserved. Homemakers in New Jersey canned 10 times more in 1943 than they did in 1942—about 50 million quarts of fruits and vegetables. In Philadelphia through the efforts of the victory garden committee 2,000 quarts of food were canned for the city's food bank, which supplies schools, hospitals, and child welfare centers. These are typical of state and city activities—the sunshine of the picture.

Disaster File

But every state has its canning disaster file—of cases ranging from spoiled food, exploding jars, and ruined stoves, to casualties from burns, cuts, and botulism.

Faulty wartime equipment caused an unprecedented amount of spoilage and accidents: glass jars which split at the seams or exploded, new type lids which gave imperfect seals, jar bands that rusted, "victory model" pressure cookers which had defective gauges or which leaked steam.

Imperfect directions given by commercial firms or by neighbors and canning folklore handed down in the family were responsible for much loss of food and many painful accidents.

Oven canning, which persists in spite of all that home economists can do, brought a long train of disasters: lost food, stoves and kitchens damaged by exploding cans, women hospitalized for serious cuts and burns.

Tomatoes Not Foolproof

Difficulties were reported even with tomatoes, once considered foolproof. Again faulty equipment and failure to follow scientifically tested directions were often to blame. But in some cases neither of these explanations

seemed to fit. Perhaps scientists, in their interest in developing tomato varieties that are not too sharp in flavor, have given us some types so lacking in acidity that traditional canning procedures fail to provide adequate safeguards.

Spur to Activity

The number and variety of canning disasters in 1943 are spurring home economists of the country into tremendous efforts to prevent their recurrence in 1944. Schools and departments of home economics, home demonstration women, and experiment stations everywhere are analyzing canning reports in their states so as to diagnose troubles and prescribe treatment. The Bureau of Human Nutrition and Home Economics is publishing excellent graphic educational material to help improve canning practices. The extension service and other parts of the USDA are planning the 1944 strategy in which expansion of community canning centers figures importantly. Manufacturers are carrying on research to improve their products.

We hope that the 1944 canning picture will have much more of sunshine, much less of shadow than had that of 1943.

Exploitation of Children

"The legislative year 1943 has been marked by widespread efforts to lower child-labor standards—efforts that seriously threaten the protective child-labor measures that have been built up over the past quarter century," reports the November 1943 issue of *The Child*, monthly bulletin of the U. S. Children's Bureau.

The unprecedented demand for workers to supply the nation's wartime manpower needs has brought tremendous pressures to lessen restrictions on child employment. Not only were many measures introduced into state legislatures to relax or otherwise modify laws protecting young workers but "State and Federal administrators, particularly those having some discretionary authority under child-labor laws, were confronted with increasing requests to lower existing standards and, at the same time, with increasing violations of legal requirements."

Backward Steps in 27 States

During the year, 27 of the states passed 62 acts affecting the employment of minors and of these 54 included some backward steps—14 of them not limited to the war period. Two of these states and one other state issued in addition 15 administrative orders or rulings, 14 of which brought about relaxations.

As the writer of the report in *The Child* points out, "These relaxations have not applied chiefly to legislation affecting specialized fields of employment, as seemed to be the trend last year, but have affected the entire field of child-labor legislation."

They have affected standards applying to children under 16 as well as minors 16 and 17 years old, thus reversing the legislative tendency, evident in certain states in 1942, toward restricting wartime exemptions from labor standards to persons 18 years of age or over.

No Weighing of Costs

Prevailing labor needs may have warranted some of the modifications made in state laws, but "much of the action seems to have been taken without weighing the cost to children and to the nation against the gain to the labor market." And denial of adequate child-labor protection and educational opportunity to our youth will mean a harvest of bitter fruit in the years to come.

The child-labor field is one in which the American Home Economics Association has long labored, and one about which home economists will always be deeply concerned. State associations might well check upon the child-labor laws of their states and where there has been regression determine upon some action program either now or after the war.

Research . . .

Palatability Studies on Home-Dehydrated Vegetables[1]

JUDITH TANNEN STILLMAN, BETTY M. WATTS, and AGNES FAY MORGAN

All three authors are in the department of home economics at the University of California: Mrs. Stillman, research assistant; Dr. Watts, assistant professor; and Dr. Morgan, professor. Dr. Watts and Dr. Morgan are assistant biochemist and biochemist respectively on the Agricultural Experiment Station staff.

THE purpose of this study was to determine the effect on palatability of dehydrated vegetables of (1) blanching in various ways before dehydration, (2) soaking for various lengths of time after dehydration, and (3) storing of the dehydrated samples at various temperatures, and to compare the same vegetables fresh, canned, and dehydrated.

Procedure

The vegetables studied were carrots, spinach, broccoli, peas, and string beans—all purchased at the local commission house. (Some research was also done with six other vegetables: greens, shredded cabbage, corn, three kinds of squash, tomatoes, and onions.) A sample of each fresh vegetable was prepared, cooked, and scored immediately. A second sample of spinach, peas, and string beans was canned. The remainder was dehydrated after various pretreatments.

The preparation for dehydration and the drying were carried out in the laboratory of Fruit Products with the assistance of Hazel Friar. Results of vitamin analyses on these vegetables will be reported separately. The vegetables were dried in small home evaporators of the natural draft (kerosene heater) or of the forced draft type without recirculation of air, using a combination electric fan and heater (*1*). As later experiments have shown, however, many gas ovens can be utilized with equally good results and at a lower fuel cost than either of the dehydrators used in this study.

With the gas barely kept burning and the oven door propped open about four inches at the top, shelf temperatures in the desired range (130° to 150° F) were maintained. Trays were made of hardware cloth and covered with mosquito netting.

The capacity of the oven could be increased by opening the oven door completely and placing on it a tight box open on the side facing the oven and fitted with trays. Fruits and vegetables required about the same time for drying in the oven as in the other dehydrators used. The capacity of the oven plus the box was only about half that of the forced draft dehydrator used, but the cost of fuel required to maintain the oven temperature was less than 0.2 cent per hour at the local rate of 4½ cents per 100 cubic feet. Operating the electric fan-heater cost about 3 cents per hour.

Drying was continued until the vegetables were brittle; moisture content then ranged

[1] Research financed in part by funds from the Bureau of Human Nutrition and Home Economics.

from 2 to 7 per cent. Vegetables which were to be steam blanched before dehydration were placed in colanders to a depth of about two inches and steamed over boiling water in a covered container. In all cases the blanching times specified were sufficient to destroy the enzyme peroxidase, as was shown by disappearance of red color in the peroxidase test (*2*).

Samples of each dehydrated product were placed in glass jars with screw-on lids and stored at each of three temperatures: 32° F, 65° F, and 82° F.

The soaking and cooking procedure was essentially the same for all vegetables tested. The amount of unsalted, distilled water to be added to each vegetable was adjusted after a preliminary trial, so that the vegetable was just covered during the entire soaking period. The soaking water was used for cooking, and the excess was evaporated during the cooking so that less than 5 milliliters remained. The cooking was in 250 ml beakers covered with watch glasses. When greater amounts of cooked vegetable were required, several beakers containing the same small amount were cooked simultaneously on an asbestos pad over the same electric burner. For all variations of any one vegetable, the same weight was taken for cooking. The vegetable was drained and weighed after cooking to determine water uptake.

The scoring was done by 20 judges selected at random and included students and laboratory and office workers. The judges were given no information about the product; they were asked only to rate it as to desirability of flavor, texture, and color, indicating whether in their opinion it was excellent, good, fair, poor, or unpalatable, and adding comments. Numerical weights were assigned as follows to arrive at a composite palatability score:

DESCRIPTION	NUMERICAL RATING		
	Flavor	Texture	Color
Excellent	40	40	20
Good	30	30	15
Fair	20	20	10
Poor	10	10	5
Unpalatable	0	0	0

TABLE 1

Palatability of fresh and dehydrated carrots, variety Imperator, sliced ¼ inch, cooked 7 minutes

LOT	STORAGE TIME	STORAGE TEMPERATURE	SOAKING TIME	WATER INTAKE	PALATABILITY SCORE
	weeks	*degrees F*	*hours*	*ml per g*	
Fresh	none	—	none	—	81
Dehydrated					
Unblanched	none	—	none	2.3	62
"	none	—	16	5.2	52
"	17½	32	8	4.3	46
"	15½	65	8	5.3	13
"	16½	82	8	4.6	18
After steaming 8 minutes	none	—	none	2.2	68
" "	none	—	4	5.7	68
" "	none	—	8	6.3	85
" "	none	—	16	6.2	75
" "	17½	32	8	5.5	64
" "	15½	65	8	6.8	60
" "	16½	82	8	5.1	50
" "	40	32	8	—	54
" "	40	65	8	—	45

Results and Discussion

Carrots. It will be observed from table 1 that the best lot of dried carrots, eaten immediately after dehydration, was entirely equal to the fresh in palatability. Soaking was essential in order to secure the plumped texture of the freshly cooked carrot. Without soaking, or with short soaking, the slices were wavy in appearance and chewy in consistency and were rated low in texture. The maximum water uptake was reached in 6 to 8 hours. Longer soaking was undesirable, as it resulted in loss of sweetness and flavor.

Unblanched carrots were consistently rated lower than blanched; and the difference was much more striking in the stored samples than in those reconstituted shortly after dehydration. Unblanched carrots stored at room temperature or higher for about four months were

practically inedible: woody in texture, off flavor, and badly faded. Blanched samples deteriorated noticeably in storage, but were still good after four months at room temperature and fair to poor after nine months' storage. Samples stored at 32 degrees rated higher than those stored at the higher temperatures, but the difference was not outstanding.

Spinach. Spinach was one of the best of the dehydrated vegetables. The sample which was steam-blanched before dehydration rated highest, but even the unblanched sample was palatable. All samples were easily reconstituted by five minutes' boiling. Soaking was unnecessary and did not increase the water uptake or raise the palatability score. Unlike other dehydrated vegetables the unblanched spinach took up significantly more water on cooking that did any of the blanched samples.

Blanching in boiling water or salt solution improved neither the color nor the general palatability score over that of the steam-blanched samples. The steam blanch is therefore to be preferred in order to conserve soluble nutrients.

No deterioration occurred during four months' storage except at high temperature (82° F) and very little deterioration after 34 weeks at room temperature. A "hay" odor which developed in the unblanched spinach on storage was largely lost during cooking.

The palatability score of the canned spinach was within the range of scores for the dehydrated products. The consistency of the canned product was tender to the point of incipient mushiness; many of the judges preferred this texture to the firmer texture of the fresh and dehydrated samples. The color of the canned product was inferior to that of any of the dehydrated samples.

TABLE 2

Palatability of fresh, canned, and dehydrated spinach, variety Hollandia (Winter Prickley), cooked 5 minutes with no preliminary soaking

LOT	STORAGE TIME	STORAGE TEMPERATURE	WATER UPTAKE	PALATABILITY SCORE
	weeks	*degrees F*	*ml per g*	
Fresh	none	—	—	87
Canned	none	—	—	72
Dehydrated				
Unblanched	none	—	7.0	70
"	16	65		77
"	34	65		66
Steam-blanched 4 minutes	none	—	5.2	73
" "	16	32		85
" "	16	65		81
" "	16	82		60
" "	34	65	4.4	68
Blanched in boiling 1% salt solution 2 minutes	none	—	3.6	61
" "	16	32		72
" "	16	65		68
" "	16	82		69
Blanched in boiling distilled water 2 minutes	none	—	5.1	66
" "	16	32		73
" "	16	65		56
" "	16	82		55

Broccoli. Blanching was found to be an essential step in the dehydration of broccoli. The unblanched dehydrated sample was practically inedible; texture was so tough and woody that it could not be tenderized even by long cooking, flavor was strong and bitter, and color was an unattractive dark yellow-green.

None of the dehydrated, cooked samples rated as high as the fresh cooked material. When cooked without soaking all samples were slightly shriveled in appearance and were graded down on texture.

With preliminary soaking periods of 6 hours or longer the water uptake was significantly increased (5.6 ml per g) and texture and appearance improved greatly, but there was a corresponding loss of flavor and probably of nutrients. Palatability scores were not increased by the 6-hour soak, but when judges were offered the soaked and unsoaked at the

same time for direct comparison, all preferred the soaked. Cooking time for the soaked samples was reduced to 5 minutes. After extended soaking (24 hours) the broccoli could be used without cooking for salads.

The dehydrated broccoli stored well; no deterioration in palatability of the steam-blanched samples was noted after 10 weeks of storage and only slight deterioration after 35 weeks. Lower and irregular scores were obtained on the stored, water-blanched samples.

TABLE 3

Palatability of fresh and dehydrated broccoli, variety unknown, cooked 20 minutes with no preliminary soaking

LOT	STORAGE TIME	STORAGE TEMPERATURE	WATER UPTAKE	PALATABILITY SCORE
	weeks	*degrees F*	*ml per g*	
Fresh	none	—	—	81
Dehydrated				
Unblanched	none	—	4.7	29
After steaming 5 minutes	none	—	4.8	68
" "	10	32		67
" "	10	65		68
" "	10	82		64
" "	35	32	5.2	63
" "	35	65	5.3	59
After boiling in 1% salt solution 5 minutes	none	—	4.7	60
" "	10	32		63
" "	10	65		68
" "	10	82		52
After boiling in distilled water 5 minutes	none	—	5.0	67
" "	10	32		45
" "	10	65		57
" "	10	82		62

Peas. Several preliminary experiments were performed on small lots of peas blanched in various ways before dehydration: steaming and boiling in the pod, also steam blanching and pressure blanching of the shelled peas. Little difference was noted in the peas blanched in the pods as compared with those steamed after shelling. Pressure blanching resulted in an undesirable mealy texture after dehydration. Therefore, only unblanched and steam-blanched shelled peas were dehydrated in larger quantities for further testing.

The dehydrated peas all rated decidedly below the fresh product but were better than the home-canned sample even after 3 months' storage. However, the peas required a long time to dry (15 to 18 hours), and it was hard to judge, without a moisture analysis, when the peas were sufficiently dry for the best keeping quality.

TABLE 4

Palatability of fresh, home-canned, and dehydrated peas, variety unknown, peas slightly overmature, variable in size, cooked 15 minutes

LOT	STORAGE TIME	STORAGE TEMPERATURE	SOAKING TIME	WATER UPTAKE	PALATABILITY SCORE
	weeks	*degrees F*	*hours*	*ml per g*	
Fresh	none	—	none	—	82
Home-canned	none	—	none	—	41
Dehydrated					
Unblanched	none	—	4	2.0	52
After steaming 8 minutes	none	—	none	2.0	60
" "	none	—	4	2.3	63
" "	12	65	none	3.2	54
" "	12	65	4	3.2	46

String Beans. As with carrots, peas, and broccoli, the blanching of string beans before dehydration was extremely important. Unblanched beans had a very objectionable strong taste and woody texture, although the color was good. Pressure blanching tended to preserve the green color better than did other methods.

The method of slicing or cutting the beans was also important. Beans split lengthwise rehydrated much more readily than did those cut crosswise. The latter were wrinkled in appearance even after 30 hours of soaking.

In fact, the only lot considered really successful were those which had been cut lengthwise, then blanched before dehydration, and soaked for 1 hour before cooking. Even these rated only 74 in palatability as compared with 82 for the fresh. The difference in score was mainly due to the poorer texture of the dehydrated beans, which were somewhat flabby after reconstitution.

A sample of the same beans canned according to commercial procedures rated very much lower than did the most successful of our dehydrated products. The canned beans were rated down about equally on all palatability factors.

Storage samples of these beans were not available for grading. However, a small lot of immature Kentucky Wonder beans was dried at a later date. They were split lengthwise and pressure-blanched four minutes before dehydration. No palatability scores were obtained immediately after dehydration, but after 5 months at room temperature, the beans rated 60 in palatability after cooking 8 minutes without previous soaking. Soaking for 1 hour plus a 4-minute cooking did not improve the score (59).

The main objection raised by the judges was to the unaccustomed appearance of the beans. The split beans tended to curl up and were described by several judges as resembling "small green worms." Though it is impossible to say from the above data how much deterioration took place on storage, one can at least say that dehydrated beans may be fair to good after several months' storage.

TABLE 5

Palatability of fresh, canned, and dehydrated string beans, variety Kentucky Wonder, beans tender and immature

LOT	METHOD OF CUTTING	SOAKING TIME	COOKING TIME	WATER UPTAKE	PALATABILITY SCORE
		hours	*minutes*	*ml per g*	
Fresh	crosswise	none	20	—	82
Canned	crosswise	none	5	—	44
Dehydrated					
Unblanched	crosswise	6	8	3.3	22
"	lengthwise	none	20	3.1	55
"	lengthwise	1	8	3.1	46
After steaming 10 minutes	crosswise	6	8	3.6	39
After boiling 10 minutes	crosswise	6	8	4.2	50
After pressure cooking 5 minutes*	crosswise	6	8	4.3	53
" "	lengthwise	none	20	3.0	54
" "	lengthwise	1	8	3.8	74

* 2-quart "presto cookers" used.

Other Dehydrated Vegetables

In addition to the five vegetables already described, a number of other vegetables have been dried in small quantities. For the most part these vegetables were bought at retail markets, and little information on variety or growing conditions could be obtained.

Asparagus. No samples of dehydrated asparagus compared favorably with the fresh product. All were tough and fibrous even after prolonged soaking and cooking, and the flavor was strong and undesirable. Splitting the stems lengthwise helped somewhat both in drying and reconstituting, but even the split, properly blanched samples were not highly successful. However, a recent publication describes a successful dehydrated asparagus purée (*3*).

Greens. Chard, beet greens, and mustard greens—like spinach—dried very successfully after steam blanching. The drying times (2 to 4 hours) were shorter than for most other vegetables if the greens were separated on the trays of the drier. However, blanched greens had a tendency to wad together and thus greatly delay drying if they were not carefully separated. Not any of the greens were improved by soaking before cooking. Unblanched mustard greens were tough and unpalatable.

Cabbage. Shredded cabbage was found to be particularly sensitive to temperatures above 140° F but could be dehydrated successfully at lower temperatures after blanching. Soaking was not necessary.

Corn. Golden Bantam and Country Gentleman corn was steamed 8 to 10 minutes, then cut from the cob before drying. The dehydrated products required a soaking period of 1 to 3 hours for best appearance. The cooking period was very short (merely brought to the boil), and the cooked products were highly palatable, among the best of the dehydrated vegetables. A sample of Golden Bantam stored at room temperature for five months scored 66.

Zucchini and Crookneck Squashes. These were dehydrated with moderate success if sliced, blanched, and dried when fresh and immature. If matured to the point where seeds were evident, the slices tended to hold the moisture around the seeds and developed a somewhat bitter flavor. Even the young squash tended to discolor during storage and lacked flavor after reconstitution. One to three hours' soaking was desirable.

Banana Squash. This variety dehydrated readily after being blanched and sliced. After a two-hour soaking it was cooked, mashed, and eaten as such or used in pie fillings with excellent results. The dehydrated product was stored for at least three months without apparent loss in palatability.

Tomatoes. They were scalded, peeled, sliced, placed on shallow enameled pans, and steamed in a large household steamer for two minutes. The pans were then transferred to the dehydrator trays. Destruction of peroxidase was also accomplished by steaming the whole tomatoes (medium size) for 10 minutes, after which they were peeled and cut.

The dehydrated tomatoes could be reconstituted by cooking at once or preferably by soaking for at least one-half hour before cooking. The blanched samples after about two months' storage at room temperature compared favorably with fresh stewed tomatoes, whereas unblanched samples had a very undesirable flavor. Preparing the tomatoes for dehydration was more troublesome than canning them, and the dried product offered no advantages over the canned.

Onions. The Australian Brown and Bermuda varieties could not be dehydrated to a brittle consistency even with prolonged drying. They remained leathery after 28 hours in the dehydrator. After five months' storage at room temperature, the blanched samples had a definitely stronger and more desirable onion flavor than did the unblanched, although raw drying of onions has been generally recommended (*4*). The judges showed no strong preference for either variety. All samples were cooked without soaking.

Summary and Conclusions

Blanching. All vegetables investigated, with the possible exception of spinach, were much more palatable if blanched long enough to destroy peroxidase before dehydration. Many dried vegetables were practically inedible if this preliminary process was omitted. The importance of blanching has been stressed repeatedly in previous publications on vegetable dehydration (*4*), (*5*). From a palatability standpoint the blanching could be done either by steaming or by boiling briefly in water or a salt solution, but the steam blanch is undoubtedly to be preferred because it increases retention of soluble nutrients. With some green vegetables which discolor easily, as string beans, a short pressure blanch may be preferable to steaming.

Reconstitution. Most of the vegetables tested improved somewhat in palatability when they were soaked before cooking. The optimum soaking time was never longer than 8 hours and usually ranged from one to 3 hours. It is doubtful whether the slight increases in palatability were great enough to balance the probable losses in soluble nutrients during soaking periods of several hours unless the soaking water is utilized. Greens, cabbage, and onions required no soaking.

The vegetables should be covered with water during the entire soaking period. Since the

amount of water to accomplish this depends not only upon the vegetable but also upon the shape and size of the pieces, it is probably best to cover the vegetables at the beginning and add more water after ½ to one hour's soaking if necessary to cover. The soaking water should be used in the cooking and may be evaporated to a small volume during the cooking process.

Storage. Extended storage observations were made only on carrots, spinach, and broccoli. Of these, spinach and broccoli stored well, while carrots deteriorated markedly. Although the palatability scores were somewhat higher on those stored at 32° F than on those stored at higher temperatures, the differences are probably not great enough to justify the expense of refrigerated storage. Nevertheless, dried vegetables should be stored in the coolest place available.

Canning vs. Dehydration. Comparison of canned with dehydrated samples of the same lot of vegetables was made only with peas, snap beans, and spinach. The best of the dehydrated samples were all superior to the canned, the difference being very marked in the case of peas.

Acceptability of Dehydrated Vegetables. Of the vegetables investigated the most promising for home dehydration were greens, peas, and corn—all vegetables which cannot be stored fresh for any appreciable time. If properly dried, these rated practically as high as the fresh product. Several other vegetables —winter squash, carrots, cabbage—also made excellent dehydrated products, but as these vegetables store fairly well fresh and are usually available during the winter, there is less incentive for drying them in the home. Broccoli, snap beans, summer squash, onions, and tomatoes dehydrated fairly successfully. Asparagus was unsuccessfully dried.

References

1. Cruess, W. V., Faust, H., and Greaves, V. D. Drying of vegetables and fruits in the home. Agr. Exten. Serv., Univ. Calif., Berkeley, 1943.
2. Cruess, W. V., and Joslyn, M. A. Significance of enzyme reaction to dehydration of vegetables. *Proc. Inst. Food Technologists*, 1942, pp. 99–110.
3. Hohl, L. A., and Haas, V. A. Experiments with dehydrated powdered vegetables. *Fruit Products J.* **22** (1943), p. 305.
4. Chace, E. M. The present status of food dehydration in the U. S. Agr. Research Div. Contribution # 73. USDA (1942).
5. Mrak, E. M. Retention of vitamins by dried fruits and vegetables. *Fruit Products J.* **21** (1941), pp. 13–15.

Easy Game

Younger boys, their attitudes easily regimented, are, most of them, openly glorying in war. They collect scrap with a mania. They hate easily and fight easily. All their personal hostilities are expressed in terms of tearing Japs to pieces and cutting off Hitler's head.

They are better off, says Dorothy Baruch, for getting the hate out of their systems. But Anna Wolf warns that the danger to these young people lies not in their expressed attitudes, but in the lack of adult example of civilized behavior which, in past days, has gradually socialized a thousand little potential Hitlers into constructive citizens. Hate-attitudes in children, allowed to develop unchecked when expressed through channels which adults happen to approve for the moment, can turn, unbidden, to any other channel that happens to arouse the hostility of the children when they grow older; and a prolonged regimentation of their attitudes will make them easy game for exploitation.—Eleanor S. Boll, "The Child," *The Annals of the American Academy of Political and Social Science*, September 1943.

Serviceability of Full-Fashioned Cotton Hose:

A Study of Hosiery Knit with Various Toe Reinforcements

MARGARET B. HAYS and MARY CAROLINE BOYER[1]

Miss Hays is textile physicist at the Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, U. S. Department of Agriculture. Miss Boyer, junior home economist there when the research reported was done, is now associate economics analyst in the textiles unit, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce.

A PREVIOUS investigation made by the Bureau of Home Economics (*1*) on full-fashioned cotton hose for nurses showed that additional foot reinforcements were needed on hose for duty wear. In an effort to determine the most satisfactory type, the Bureau recently manufactured, under controlled experimental conditions, hose with reinforcing toe yarns of three different sizes. These hose were subjected to a service test as part of the Bureau's research program to determine how much wear can be obtained from clothing and household textiles of known constructions.

Materials

All hose were knit from SxP American-Egyptian cotton produced at the U. S. field station in Arizona. The cotton was graded as No. 1 and classed as $1\frac{9}{16}$" staple. The leg yarn was 120/2 with a heavier 90/2 for the heel and sole reinforcements. The various toe reinforcing yarns were 80/2, 90/2, and 120/2. All yarns used in knitting these hose were spun with 3.75 Twist Multiplier, Z twist in the single and 4.25 Twist Multiplier, S twist in the ply.

[1] Appreciation is expressed to E. Genevieve Wilson, director of nurses, and Gertrude Harwood, matron, Garfield Memorial Hospital, Washington, D. C., for their co-operation which made this study possible. The arrangements for spinning and knitting were made by David H. Young, senior marketing specialist, Bureau of Human Nutrition and Home Economics. Nathaniel Jones, formerly assistant cotton technologist, supervised the spinning of the yarns and the knitting of the hose. Hyman D. Rothkopf, formerly junior scientific aide, made all the yarn tests. Jeanne King, junior scientific aide, assisted with the statistical analysis of the data.

The breaking strength by the single strand method was 0.88, 0.75, and 0.54 pounds for the 80/2, 90/2, and 120/2 yarns, respectively. All yarns were combed, mercerized, and gassed.

The hose were plain knit, size $9\frac{1}{2}$, with 46 courses per inch on a 42-gauge, full-fashioned hosiery machine. All had a 4-inch, double-stretch welt and a full cradle sole. In the toe, Lot I had the regular reinforcement of 2 ends (yarns) of 90/2, Lot II had 2 ends of 90/2 plus 1 end of 120/2, and Lot III had 2 ends of 80/2 plus 1 end of 120/2. All were looped and seamed, 16 stitches per inch, with 90/3 yarn. They were fully bleached, boarded, and paired by length at the mill. The bursting strength averaged 37.2 pounds.

Procedure

All stockings were marked with identifying numbers and laundered. Ten dozen pairs of each of the three constructions were distributed to 76 nurses in a Washington hospital. Hose of these three constructions were worn in rotation by each student for 8-hour duty and after each day's wear were brought to the Bureau's laboratory for laundering, inspection, and repair.

In the laundering, a vacuum-cup type of home washing machine was used, 12 pairs of hose being placed in each mesh bag. The soap solution was prepared by dissolving 175 grams of neutral chip soap in 2 liters of water. The soda ash solution for neutralizing the water contained 170 grams of 58 per cent soda ash dissolved in 6 liters of water. To each tub of water, 100 milliliters of soda ash solution were

added. The laundry method included one 6-minute suds at 30° C with 300 milliliters of soap solution, one 10-minute suds at 70° C with 225 milliliters of soap solution, four 6-minute rinses at 60° C, and a final 5-minute rinse in cold water. The hose were centrifuged after each suds and rinse. They were hung over smooth metal rods and allowed to dry at room temperature overnight.

In the laboratory an individual daily record was kept of the hose washed. Each was inspected for snags, runners, and holes. Every break and the number of times the hose had been laundered before the break occurred were recorded on individual wear charts. The student nurse had the privilege of returning hose she considered no longer wearable, but in nearly every instance the worker who kept the records decided the time of discard. Although no standard was established for time of discard, this plan brought greater uniformity than if the decision had been left to the individual nurses. Only 56 pairs of each construction were continued in service until worn out even though 120 pairs of each were issued in the beginning. In certain cases the records were incomplete because of accidents or because the students left training before the hose wore out.

Tests for abrasion were made on new hose in a laboratory maintained at 70° F and 65 per cent relative humidity. The Taber Abraser was used to compare the resistance to abrasion of the toe and heel areas of 4 hose of each of the three lots after the preliminary wash. The 8-sectioned hosiery disc or table, 4 inches in diameter, with rubber composition surface and 2 rubber abrading heads were the attachments used.

The foot of the test hose was cut off through the top of the heel reinforcement and the ankle. The foot was flattened by cutting along the seam from the top of the heel reinforcement to the toe tip and through the toe looping. The toe and heel areas of the test hose were so placed on the sectional table as to be abraded in those regions where holes had occurred in stockings worn by the nurses.

Only heel samples were abraded at any one time and likewise only toe samples. The deep groove between each table section permitted the knit fabrics to be held securely by a spoked-disc fitting into the grooves. This disc was screwed at the center, holding the test samples firmly with a minimum of tension. A light-weight ring clamp with screw adjustment was fitted as a rim over the outer edge of the sectional table which revolved counterclockwise.

Before each test was begun and after every 500 wear cycles, the abrading heads were smoothed by rubbing them 15 cycles on the emery table. The emery table and the abrading heads were brushed clean. The test samples and the abrading heads were also brushed lightly after every 50 wear cycles to remove lint particles. When the first hole appeared, the number of wear cycles was recorded for the test sample.

Results

Time of discard for the three lots of hose was as follows: Lot I, from 7 to 43 days; Lot II, 4 to 39 days; Lot III, 3 to 40 days; or an average for the three lots of 19.4 days. The most frequent cause of discard was failure of the leg area. In computing the average time of discard, the data for the three lots (168 pairs) were pooled since the legs, heels, and soles of all three lots were the same construction. The number of samples required for 90 per cent probability was calculated by the formula developed by the American Society for Testing Materials (*2*) as 42 for a 10 per cent error or 169 for a 5 per cent error. Accordingly, if the experiment were repeated there is a 90 per cent probability that the average of 19.4 days for 168 pairs would be duplicated to within 5 per cent.

The use of a three-end toe reinforcement reduced the required mending considerably. Of the 56 pairs of discarded hose in each lot, the ring toe and upper instep adjoining the ring toe of Lot I required 512 repairs; Lot II, 205; and Lot III, 161. In other words, Lot I with the regular toe reinforcement, needed more than twice as many repairs as Lot II with 2 ends of 90/2 and 1 end of 120/2 and more than

three times the number required for Lot III with 2 ends 80/2 and 1 end 120/2.

Resistance to abrasion as measured by the Taber Abraser increased as the yarn number of the reinforcing yarn decreased. In the toe area of the hose in Lot I, a hole developed after 687 cycles; in Lot II, after 982 cycles; and in Lot III, after 1,285 cycles. Each value is the average of 4 determinations.

These findings show close similarity between laboratory test results and wear tests. In actual wear, hose in Lot III required the least mending; by laboratory test, hose in this lot had the greatest resistance to abrasion. Hose in Lot I needed the most toe repairs and were least resistant to abrasion.

In the heel section, a hole developed after 309, 401, and 381 wear cycles for Lots I, II, and III, respectively. These latter values, averages of 8 determinations, are for dots of hose with similar heel reinforcements.

Time of discard, toe repairs, and toe resistance to abrasion of three constructions of cotton hose

CONSTRUCTION	TIME OF DISCARD			TOE REPAIRS REQUIRED BY 56 PAIRS	TOE RESISTANCE TO ABRASION* (NEW HOSE)
	Range	Average of 56 pairs	Standard deviation		
	days	*days*	*days*	*number*	*cycles*
Lot I					
2 ends of 90/2	7 to 43	20.0	6.90	512	687
Lot II					
2 ends of 90/2					
1 end of 120/2	4 to 39	20.6	8.54	205	982
Lot III					
2 ends of 80/2					
1 end of 120/2	3 to 40	17.6	7.26	161	1,285

* Average of 4 determinations on the Taber Abraser.

Summary

Ten dozen pairs of nurses' white cotton hosiery of each of three lots were put into service in a Washington hospital. These hose, knit from 120/2 SxP variety American-Egyptian cotton, differed only in the toe reinforcement yarn.

The average time of discard for the three lots of hose was 19.4 days. If the experiment were repeated the probability is 90 per cent that this average would not be in error more than 5 per cent (1 day).

The hose made with the toe reinforcement of 2 ends of 80/2 and 1 end of 120/2 had the greatest resistance to abrasion by laboratory test and required the least mending in service. The hose with the 2 ends of 90/2 and 1 end of 120/2 reinforcement was next, followed by the regular 2-end reinforcement which had the least resistance to abrasion and needed the most mending.

References

1. HAYS, M. B., PETERSEN, E. C., and JELINEK, V. C. A serviceability study of full-fashioned cotton hose for nurses. *Am. Dyestuff Reptr.* 30 (Sept. 1941) pp. 471–478+.
2. AMERICAN SOCIETY FOR TESTING MATERIALS. *ASTM Standards on Textile Materials.* Philadelphia: ASTM (1941), p. 278.

Association Business . . .

Food and Nutrition Division

State Food and Nutrition Chairmen:

Again this division has asked the state associations to appoint a chairman or committee for food and nutrition. This request included the following comment:

"No doubt your state, county, city, and town nutrition committees of the Food Distribution Administration or the War Council are already well organized to advance work along food and nutrition lines as the need arises. The food and nutrition division of the American Home Economics Association does not recommend that you form a food and nutrition committee in your state home economics association to work separately from the already appointed and working nutrition committee.

"It does recommend that you, as representative of the food and nutrition committee or division of your state home economics association, and the people working with you consider the needs as you see them and join with your state nutrition committee to meet these and other needs."

Among the problems which you no doubt will consider this fall are: the school lunch program, the nutrition of the industrial worker, food and nutrition phases of day-care centers, and nutrition problems caused by food shortages and rationing. Your participation in the Food Fights for Freedom program is urged.

The division officers desire to be apprised of the names of these state and local committees so that suggestions for the program and other material may be sent directly to them. Perhaps even though you and they may be overwhelmed already with government and business offerings, you will listen to our still small voice.

We hope to circulate a research newsletter instead of the annual research reports, in case no convention is held in 1944 and perhaps even if a meeting is held. Is your name on our list?

The Research Committee

E. Neige Todhunter, University of Alabama, is research chairman of the division for 1943–45 and has gathered about her a representative group of committee members. Some activities to be undertaken, besides the research newsletter blithely planned by your chairman, are: (1) reviewing articles and abstracts on new research for the JOURNAL; (2) listing and appraising the most important research problems now confronting us, for possible attack by some of our members; (3) collaborating with other agencies on urgent wartime or other problems; and (4) searching for further methods of selecting, recruiting, and training young workers for this research field.

The National Nutrition Bill

The bill providing new funds for research in food and nutrition by the U. S. Department of Agriculture and the agricultural experiment stations was presented in March 1943 as HR2276 by Representative S. Pace of Georgia. A similar bill will soon be introduced into the Senate and thereafter we hope that the committees to which the bills are referred will hold hearings. Your representatives in Congress should be informed of your support of the bill at that time.

Handbook of Food Manipulation

The committee which will revise and issue under this new name the booklet on "Terminology Used in Food Preparation" now distributed by the American Home Economics Association is headed by Elsie H. Dawson of the Bureau of Human Nutrition and Home Economics. Most of the able committee which worked on the handbook last year are continuing the work.

Every effort will be made to complete the revision this year so that the new handbook will be ready for publication early in the summer. Some of the topics to be included are: standardization of weights and measures; basic proportions and equivalent substitutions; cooking processes, times, and temperatures; definitions and standards of identity; federal standards for foods; can sizes; reconstitution of dehydrated foods; tables of jelling, foaming, and emulsifying properties of foods; and tables of sugar and salt solubilities and sugar concentrations for various purposes.—AGNES FAY MORGAN, *Chairman.*

New Books . . .

Your Children in Wartime. By ANGELO PATRI. Garden City, New York: Doubleday, Doran & Company, Inc., 1943, 115 pp., $1.50.

This book was written in answer to inquiries from numerous anxious readers: "How are we to keep the children healthy and happy, at peace within themselves while the world burns over their heads? What are we to do and say? And how can we say it effectively?"

Dividing the book into three sections—one each for parents, teachers, and children—Mr. Patri answers the questions in his calm, kindly, ingenious way, which has been so helpful in the past. "Safety is not assured to any child no matter how watched and tended. The child who is so safeguarded that he cannot make a mistake will not be able to stand alone in time of need."

The section for children themselves gives a simple, practical philosophy which will help them feel that their contribution is important. The advice to teen-age girls is timely, frank, and sound. The whole book would make excellent discussion material for high school classes as well as for parents.—ESTHER MCGINNIS, *State Teachers College at Buffalo.*

Childcraft. Chicago: The Quarrie Corporation, 1942, $47.

Childcraft is a set of 14 volumes intended for children up to about 10 years of age. The books, however, are so well written and illustrated and deal with such varied subject matter that they hold much of interest for persons of all ages.

Eight volumes are planned for children, six for parents. Titles of volumes for children are: "Poems of Early Childhood," "Narrative Poems and Creative Verse," "Experience Stories and Animal Friends," "Tales and Legends," "Our Own Country and Foreign Lands," "Holidays and Famous People," "Art and Music," and "Science and Industry."

Beginning with selections from Mother Goose, volume one introduces the young listener to the best of juvenile poetry written by such poets as Shakespeare, Browning, Robert Louis Stevenson, and Tennyson. Storytelling poems in volume two are a delight to old and young. A section of poetry written by young children, with suggested ways to encourage this expression, should be of special interest to parents.

The volume on art and music suggests ways to stimulate a child's interest in drawing, painting, carving, making puppets, and other handwork. A splendid article on "Making Musical Instruments" shows ways to convert commonplace articles into musical instruments. A song section with words and music of simple tunes completes the volume. Hundreds of photographs pertaining to nature, science, and industry with brief captions are contained in the second volume.

The six volumes for parents aim at providing a rounded-out child rearing program. Authorities on child development and family life discuss such topics as education for parenthood, food and nutrition, sex in the young child's life, character development, the child who is different, manners, storytelling, motion pictures, schools, parties and holidays, pets, things to make at home, creative plays and festivals, nature study. Questions and bibliographies add to the interest and usefulness of the books. The last volume co-ordinates and gives cross references to the other volumes and presents new material such as: an age scale of mental development, height-weight tables, book lists for older children, and a parents' rating scale.

Childcraft should not be confined to the home. Community workers caring for the children of mothers engaged in war work should find these volumes a practical guide in their work.—MRS. BERNICE K. FINN, *Washington, D. C.*

The Arts of Costume and Personal Appearance. By GRACE MARGARET MORTON. New York: John Wiley & Sons, Inc., 1943, 400 pp., $4.50.

This book written primarily for home economics students will also be helpful to women's clubs and to homemakers. It is a "must" for anyone interested in clothes from the merchandising and commercial designing angles as well as from the standpoint of personal dress. It has been especially well organized and possesses clarity and charm in method of presentation. The illustrations are classical in nature, which means that this book will have permanent appeal.

The author stresses such subjects as the design essentials of good costume, fundamentals of color, the element of light and dark, the art of combining colors, enhancing personal coloring, texture and texture combination, clothes to improve irregular figures, understanding and dressing to tempera-

ment, hats and hairdressing, and wardrobe building.

Miss Morton, who has taught costume designing for several years, has written a book which will be a definite contribution in the field of home economics for many years to come.—MARIAN JUAIRE, *University of Wisconsin.*

The Science of Nutrition. By H. C. SHERMAN. New York: Columbia University Press, 1943, 253 pp., $2.75.

This is "a book *about* nutrition rather than *in* the science." It is a condensed nontechnical summary of the present status of nutrition written for the intelligent, interested professional worker or layman who wishes to be better informed about the field of nutrition and the many implications for both individual and national health. The first half of the book includes a brief discussion of the various dietary essentials and food groups while the last half is devoted to a more general consideration of present conditions regarding food consumption and possibilities for future development.

Perhaps the last two chapters will be of greatest interest to the nutritionist. The scientific and philosophic bases for both personal and public nutrition policy are considered, and specific suggestions are given for wise procedures based on the findings and guidance of present-day science. The final chapter on "The Scientific Critique of the 'Offer' of Higher Health and Longer Life" points to the vast amount of experimental data and clinical evidence indicating the direction for the future if human welfare is the goal.

Anyone who helps formulate postwar policies in food and agriculture could with profit read this book and be guided by its broad understanding and deep insight into problems of nutrition as they affect the health and well-being of the peoples of the world.—ELDA ROBB, *Simmons College.*

Nutrition in Health and Disease. By LENNA F. COOPER, EDITH M. BARBER, and HELEN S. MITCHELL. *Ninth Edition, Revised.* Philadelphia: J. B. Lippincott Company, 1943, 716 pp., $3.50.

A book written by these three authors cannot escape being timely, authentic, interesting, and practical. The present edition, the ninth, has been brought completely up to date, revision being most evident in those sections of the book dealing with vitamins, wartime nutrition problems, the tabular materials, and glossary. Special mention should be made of table 1, "The Proximate Composition of Food." Old figures have been revised, and new figures have been added for pantothenic acid, pyridoxine, and biotin.

Although the material is organized in units to conform to the Curriculum Guide for Schools of Nursing and is widely used as a textbook in this field, it is also an excellent guide for anyone interested in the fundamental principles of nutrition as related to health and disease. The units on food selection and cookery give practical suggestions for applying these principles to feeding both the sick and the well.

The subject matter is comprehensive—716 pages—but it is organized and presented in such a clear, concise manner that students should have no difficulty in following the sequences. Each chapter begins with an outline of material to be covered and ends with a summary and review. Emphasis is on the significant aspects of each topic, and the development is clear and logical. Bibliographies are adequate and up to date. New colored pictures of certain deficiency states and other graphic materials have been added.

This book would seem indispensable for anyone responsible for teaching nurses and valuable for all who are interested in the subject matter covered.—ELDA ROBB, *Simmons College.*

Nutrition and Physical Fitness. By L. JEAN BOGERT. *Fourth Edition.* Philadelphia: W. B. Saunders Company, 1943, 500 pp., $3.

This edition improves upon its predecessors by giving greater emphasis to the minerals and vitamins, less to methods of cooking, menu making, and food adjuncts. The vitamin tables have been revised to give the vitamin content in accepted units, thereby discarding the plus signs.

However, this edition lacks a table giving the niacin values of foods. Although cooking losses are discussed, no suggested basis for deductions from the table values is given. The practical value of the book to the lay person would be enhanced by the inclusion of such percentages or amounts.—FLORENCE I. SCOULAR, *North Texas State Teachers College.*

Victory Vitamin Cook Book for Wartime Meals. By FLORENCE LAGANKE HARRIS. New York: Wm. Penn Publishing Corp., 1943, 185 pp., $1.50.

As the title indicates, this book has been written to help with wartime cookery problems. It is more than a cookbook, as the first part of the book

gives a brief but easy-to-read discussion of the various dietary essentials.

Considerable emphasis is given to the daily food guide in the selection of foods. The recipes include meats, meat extenders, sugar-saving desserts, vegetables, and beverages other than tea and coffee. Accepted principles of food preparation are explained and emphasized.—NINA BROWNING, *Kansas State College.*

Vitamin Values of Foods: A Compilation. By LELA E. BOOHER, EVA R. HARTZLER, and ELIZABETH M. HEWSTON. Brooklyn, New York: Chemical Publishing Co., Inc., 1942, 244 pp., $2.75.

This publication reproduces in book form U. S. Department of Agriculture Circular No. 638, originally compiled by Booher, Hartzler, and Hewston. The 223-page table of vitamin values of foods as recorded in the literature through December 1940 includes data for vitamin A, vitamin D, thiamin, riboflavin, and ascorbic acid, with a column for bibliographical citations. It incorporates a wealth of material valuable to persons concerned in any capacity whatsoever with the vitamin content of food. The book can well replace the less expensive circular if the Department should discontinue distribution.—LEAH ASCHAM, *Kansas State College.*

Addendum to the Chemistry of the Amino Acids and Proteins. Edited by CARL L. A. SCHMIDT. Springfield, Illinois: Charles C. Thomas, 1943, [156] pp., $5.

Emil Fischer's comment that scientific advancement is not promoted so much by the genius of one individual as by the co-operation of many workers is proved by this book. It is an addition to the 1938 edition of the larger work on *The Chemistry of the Amino Acids and Proteins* and like the other edition is the work of several authors, each an authority in his field.

It brings the older book up to date, covering the literature from 1937 to 1942 in such a way as to prove helpful to investigators and students of nutrition. The arrangement of the chapters follows that of the parent book, which makes for easy usage.

The book takes up the newer methods of isolation and synthesis of amino acids and proteins; methods of analysis and reactions; use of isotopes in studying metabolic reactions; their relation to vitamins and hormones; the chemical composition and molecular weight of proteins; their combination with acids, bases, and heavy metals; relation of proteins to immunity; and the role of proteins in nutrition. References at the end of each chapter are quite comprehensive.—BEULAH D. WESTERMAN, *Kansas State College.*

Coupon Cookery. By PRUDENCE PENNY. Hollywood, California: Murray & Gee, Inc., 1943, 128 pp., $1.50.

The Fannie Farmer Junior Cook Book. By WILMA LORD PERKINS. Boston: Little, Brown and Company, 1942, 208 pp., $1.75.

Stina: The Story of a Cook. By HERMAN SMITH. New York: M. Barrows & Co., Inc., 1942, 242 pp., $2.

Cross Creek Cookery. By MARJORIE KINNAN RAWLINGS. New York: Charles Scribner's Sons, 1942, 230 pp., $2.50.

These four little books have two things in common: recipes and a deep interest in cookery. *Stina* uses narrative as a recipe extender; *Cross Creek Cookery* adds excellent literary style and drawings that have real charm; *Fannie Farmer Junior* has amusing cartoons which should attract the teen-age girl; and *Coupon Cookery* has a breezy, practical, journalistic air. Each makes a contribution to the field of cookery.—H. P. H.

Annual Review of Physiology. *Volume V.* Edited by JAMES MURRAY LUCK and VICTOR E. HALL. Stanford University, California: American Physiological Society and Annual Reviews, Inc., 1943, 613 pp., $5.

Among papers in this volume of special interest to home economists are "The Functional Psychoses" by N. Cameron, "Physiological Correlates of Behavior" by H. F. Harlow, "Endocrinology of Reproduction" by C. A. Pfeiffer, and "Developmental Physiology" by W. F. Windle.—H. P. H.

Annual Review of Biochemistry. *Volume XII.* Edited by JAMES MURRAY LUCK and JAMES H. C. SMITH. Stanford University, California: Annual Reviews, Inc., 1943, 704 pp., $5.

The proteins and amino acids, the lipins, synthetic drugs, viruses, hormones, the vitamins, and microchemistry are among subjects treated in this volume. The 27-page paper on "Nutrition, 1941 and 1942" is by Caroline S. Lanford and H. C. Sherman. Among other writers are H. Borsook, R. J. Williams, and H. Sobotka.—H. P. H.

Abstracts. . .

EDUCATION

Contributed by Johnie Christian, Texas State College for Women

Blueprint for post-war education, NATIONAL RESOURCES PLANNING BOARD. *Nation's Schools* 32, No. 5 (Nov. 1943), p. 19.

The complexity of modern life requires education broader in scope and extended over a longer period than formerly. Work experience, formerly a part of every child's home life, must now be provided by the school. It is here that habits are formed, interests and capabilities discovered. Modern life also demands that the school give attention to healthful living, safety, attitudes that make for happy association with others, as well as good citizenship.

Specific recommendations include: (1) Elementary and high school education should be assured all youth. (2) Services for young children, such as nursery schools and kindergartens should be available to urban and, insofar as practical, to rural areas. (3) Equal access to general and specialized education should be available to college youth according to abilities and needs of society. (4) Part-time education should be available to adults. (5) Educational opportunities for children who need special types should be expanded. (6) The quality of all education should be made adequate for a democracy. (7) Men and women of the armed services should be given opportunity for further education after the war where there has been an interruption. (8) Camp facilities, together with work experience, should be made available to all youth above the lower elementary grades. (9) Meals at school, supervised work and play, should be provided where needed. (10) An extensive program of building construction and repair should be undertaken. (11) School districts should be reorganized to enlarge the local administrative unit and tax base. (12) Dormitory and transportation facilities for children in rural areas should be greatly expanded. (13) Services of the U. S. Office of Education and the U. S. State Department should be expanded to provide adequate research facilities and educational leadership. (14) Adequate funds should be made available by local, state, and federal governments. (15) The inequality of the tax burden for education should be reduced through distribution of federal funds on the basis of need.

Here's what I hope my children will learn, H. JENSEN. *Progressive Educ.* 20, No. 6 (Oct. 1943), p. 267.

In the world-to-come there will be such confusion of values that only a person of wisdom and taste will be able to extract from this welter something true and solid. Children should be able to accept or discard wisely, hear and analyze evidence, but not believe everything a textbook says. They will need to know ways of living and learning rather than raw facts and to consider themselves as creators as well as consumers of pleasure.

A school too concerned with texts, authority, and facts cannot give children this point of view. Children must have created for them a little world wherein the rules of give and take, rather than those of authority, prevail. Here they may grow not as undisciplined weeds accepting class hate but rather as little people in a well-ordered world. They can learn to make the choice between the attitude that people are essentially evil and need conventions for their control, and that which believes that people are essentially good and that their customs and institutions are their ways of expressing themselves. In tomorrow's school, children should help establish the customs, decide the rewards and punishments, and determine the patterns of their groups. This would give them the germ of wisdom that is needed for ensuring lasting peace.

An emergency in the education of American youth, EDUCATIONAL POLICIES COMMISSION. *Natl. Educ. Assoc. J.* 32, No. 7 (Oct. 1943), p. 192.

High wages, a desire to help in the war effort, and thoughtless inducements of adults are responsible for the mounting rate of boys' and girls' leaving high school before graduation.

Adults should help them understand that the greatest service to the war effort is to get ready for

a greater service later. Education will surely be needed in the highly competitive labor market of postwar years.

It is often possible to combine part-time work in a war occupation with continuation of regular schooling, but education should not be allowed to suffer through such an arrangement.

Youth need counseling service in connection with work permits. Schools should be aware of essential work needs in the community and be ready to assist in developing co-operative schemes for meeting them. Late afternoon and evening classes can often be organized to make educational opportunities more available.

A socio-economic curriculum study, F. W. LITTLE. *School Rev.* **51**, No. 8 (Oct. 1943), p. 485.

The curriculums of the high schools of the nation have been weighed and found wanting. The public high school of today, like its predecessors, must prepare for college entrance, but at the same time it must meet the educational needs of millions who do not go to college. It should also help with many personal problems, such as those relating to physical and mental health and to family life.

The superintendent and teachers in Garrand County, Kentucky, wishing to evaluate their schools, asked former pupils why they quit school, what functional values their courses had had, and what suggestions they had for improvement. None gave dislike for school as a reason for quitting; few, economic pressure. Girls listed marriage as the chief reason for quitting.

A reasonable number of the group seemed to have made a satisfactory vocational adjustment. Subjects considered most useful were English, mathematics, social science, and general science. Home economics made a poor showing but was offered in only one school, and girls who had not had the course listed it as one they wished they had had. Courses listed as desirable included first aid, Bible, military training, and psychology. Dancing, frowned upon by most of the adults in the communities, was suggested as a desirable extra-curricular activity.

Conclusions: (1) Most pupils who drop out of school would stay if they found it profitable and interesting. (2) Too many courses have benefited a few at the expense of many. (3) Time might be better used training for actual living. (4) Curriculums must be more flexible.

Marriage and the family after the war, R. E. BABER. *Ann. Am. Acad. Pol. & Soc. Sci.* **229** (Sept. 1943), p. 164.

In wartime social change is evident to all. No amount of sentiment or will power can bring about a complete return to prewar conditions. The habits and attitudes clustering about marriage undergo profound and to some extent lasting change because of war. When husbands are away from home, wives assume responsibilities which they are loath to relinquish. Likewise, war usually roughens and hardens men.

War tends to increase marriages. Some young people move up the wedding date; some are swept along by the example of others.

Not all delayed marriages will materialize due to the fact that some young men will not return; some will be incapacitated; and others will have a completely changed point of view.

The war also brings an increase in the birth rate, followed by a lag and later another rise in birth rate after hostilities cease.

We may also expect a rise in divorce rate. In this country we do not have an enviable record of stability in marriages even during peace. The passing of time brings changes in youth, but the passing of war brings still more. A period of readjustment will come after peace when engaged couples will be reunited.

It is difficult to predict the effects of the war on parent-child relationships. Some possibilities are that children may appreciate the increased freedom which has come to them because parents were away from home, but some may resent the lack of care, may find that the war has taken the father or left him an invalid for life. Juvenile delinquency will remain high for a time after the war.

The family is in for a hard time ahead but will survive as an institution. The coming economic storm will take a considerable toll, but increased social work, improved education, better parent education, and more family-counseling agencies will help the situation. Perhaps the greater danger is the inability of so many to perceive what weakens the family most and at what points special effort is needed.

FAMILY ECONOMICS

Contributed by Faith Clark, Hannah W. Frank, Lucile F. Mork, and Jean L. Pennock, Family Economics Division, U. S. Bureau of Human Nutrition and Home Economics

Trends in future "little gray home," F. CONNOR. *Dom. Commerce* 31, No. 23 (Oct. 1943), pp. 11, 29–30.

Predictions of revolutionary changes in postwar house design are legion but appear only in pictures and writing. Observation and experience have convinced experts that families prefer conservatism in their home—"a homey place in a pleasing setting."

Internally, the occupant of the future home will find labor saving reduced to a science, lost motion to a minimum, and blended colors appealing to the eye. Prefabrication in house parts and equipment, of which much has been learned as a part of the war effort, will be more generally used, thereby reducing installation costs.

Competition by manufacturers may result in steel, aluminum, and magnesium replacing lumber and clay. Also, plastics are expected to be in the general competition. Fireproof construction will have a wider application. The process now is rather expensive, but indications are that with progress costs will be reduced.—L. F. M.

What price children? F. E. ANDREWS. *Atlantic Monthly* 172, No. 5 (Nov. 1943), pp. 94–99.

The cost of rearing children, estimated at $9500 a child, has resulted in small families or in dependence on relief to supplement income in large families. Some countries are attacking this problem through family allowances such as the Beveridge plan proposes for England. We have no such system in general use in this country, although we do use the principle in providing free public schools, aid to dependent children, income tax deductions for dependents, and now servicemen's dependents' allowances.

The author proposes a national system of children's allowances, paid to the mother for every child, regardless of family income, until the child is 16, or if he is in school, 18. The allowance should be paid out of a central fund from general taxation and should vary with the age of the child. It should also be adjusted for regional differences in the cost of living.

Such a program would cost about six billion dollars a year offset by some decrease in cost of present assistance programs. It would assure equality of opportunity as between the child in a small family and the child in a large family. By removing the problem of support of children, it would also solve the "equal work for equal pay" problem, and during the war would provide a means of controlling spendable income.—J. L. P.

Adequacy of a diet eaten by children eight to eleven years of age, F. A. JOHNSTON. *J. Am. Dietetic Assoc.* 19, No. 6 (June 1943), pp. 416–420.

This is a report on the nutritive value of a diet eaten by a group of 21 children who were offered meals containing the protective foods in amounts usually advised for children. The group included 12 boys, 8, 9, and 10 years of age, and 9 girls, 9, 10, and 11 years of age, who were living in an institution and were acting as subjects for a study of iron metabolism.

The meals were planned by a dietitian to include the following daily: 1 quart of milk, 1 serving of meat (liver once every 2 weeks), 1 egg, 2 servings of fruit (including 1 serving of citrus fruit or tomatoes), 2 or more servings of vegetables, 1 or 2 servings of potatoes, whole cereal.

All food consumed at meals and between meals for two weeks was weighed. Quantities of dietary essentials were computed, and results were compared to the recommended daily allowance formulated by the National Research Council. The average intakes of all children were up to or above the standard allowance in every respect.

The author concludes that if foods similar to those listed are served to children in amounts suited to the size and appetite of the children, enough of these foods will be eaten to furnish recommended quantities of dietary essentials.—H. W. F.

Minimum welfare standards as a postwar objective, E. R. WALKER. *Intern. Labour Rev.* 48, No. 4 (Oct. 1943), pp. 417–433.

One issue of the postwar period will be the possibility and desirability of setting up minimum standards of welfare, below which no member of the community will be allowed to fall. Such a minimum standard would be in line with the Atlantic Charter. Economists are not accustomed to dealing with this problem, and proper handling may require some adjustment in their objectives. However, the potential problems are the modern counterpart of the problems economists have always handled and deserve their attention.

The most favored method of exposition and

analysis is to select the composite standard, estimate the quantities of goods and services required to supply the standard to all the population, and advocate planned production and distribution. Consideration is given to the two objectives most likely to be raised by economists—that a fixed composite standard will give less individual satisfaction, and that the standard must depend on the possibility of increasing general productivity, or of modifying the distribution of the national income without causing it to decline. New trends in economic thought, it is suggested, have resulted in less forceful arguments on these points.—L. F. M.

Continental Europe's wartime food balance, J. H. RICHTER. *Foreign Agr.* 7, No. 4 (Apr. 1943), pp. 85–96.

A statistical evaluation of continental Europe's food production and consumption (excluding Russia's) is presented for 1936, and for the crop year 1941–42.

Before the war 90 per cent of the total calories consumed was from domestic resources. Domestic production has decreased about 8 per cent, and imports have been cut off. Greater reliance is placed on foodstuffs of vegetable origin, and some diversion of crop production from feed to food uses has been made.

Average prewar civilian consumption is estimated at 2,885 calories compared to 2,420 calories in 1941–42, or about 84 per cent of the prewar level. Consumption, of course, varies in different countries and regions; many people, including most of the agricultural population, are still living at prewar levels while millions of people must subsist on much less than three-fourths of their accustomed energy intake.

Before the war foodstuffs of animal origin provided 22 per cent of the calories whereas in 1941–42 the over-all estimate is only 17 per cent. Per capita quantities of available animal protein have been reduced by at least one-third; of total protein, by about 8 per cent; of fat, by about 37 per cent; and of carbohydrates, by about 7 per cent. Vegetable protein has increased by about 11 per cent largely because of the higher flour extraction.

Although reductions in the food supplies of European Axis countries have occurred, they are not severe enough to be a decisive factor in the war. Germany's food position is thought to be much better than in the last war.—F. C.

A dietary survey in Winnipeg, M. C. HILTZ. *Can. J. Public Health* 34, No. 1 (Jan. 1943), pp. 6–10.

A dietary survey was made in Winnipeg to investigate the food habits of some of the families known to the Family Bureau to see how they compared with families studied in other parts of Canada. The so-called "inventory method" was used. Data covering a 10-day period were secured from 29 families (165 persons) whose average yearly incomes ranged from $948 to $1,764; only two families received more than $1,500.

Compared with the Canadian Dietary Standard accepted by the Canadian Council on Nutrition in May 1942, the calories, protein, iron, and vitamin A levels were adequate in most instances. The calcium intake was low, with 24 per cent of the family diets considered markedly deficient (under 70 per cent of the standard). In both vitamins B_1 and C, 80 per cent of the families were markedly deficient. As fortified bread and flour are now on the market, those using these products will reduce their deficiency in vitamin B_1. Low intake of vitamin C may be in part due to the fact that the survey was made in February, but fresh fruits are always expensive and are not usually eaten by low-income families.—H. W. F.

Hosiery's complex wartime problem, J. BLACK. *Dom. Commerce* 31, No. 23 (Oct. 1943), pp. 17–28.

"Quick-fire" changes in types of raw materials and methods of manufacturing have become commonplace without appreciably affecting the flow of essential merchandise to consumers. The women's full-fashioned hosiery industry illustrates the way the problem of successive substitutions of raw materials can be met.

Three major changes were made within a short time in type of fiber used. Substitution problems were complicated since they followed a period of comparative stability. Prior to the advent of nylon, silk ruled supreme. However, the use of nylon in hosiery nearly tripled between July 1940 and July 1941.

Early in the war both silk and nylon were named strategic textiles, and manufacturers were faced with a basic problem of fiber substitutions. Much of the success of their efforts is due to prewar research and experimentation. Hosiery, today, is largely made of rayon, but the output of cotton hosiery is increasing.—L. F. M.

FAMILY RELATIONS AND CHILD DEVELOPMENT

Contributed by Ruth Staples and Leland H. Stott, University of Nebraska, and Mildred Thurow Tate and Mary Frances Reed, Virginia Polytechnic Institute

Children and war, A. T. JERSILD and M. F. MEIGS. *Psychol. Bull.* **40,** No. 8 (Oct. 1943), pp. 541–573.

This is a review of the findings of research studies—of reports by observers in the field and by government agencies—concerning the impact of the war upon children. The aspects of this subject are grouped as follows: children's information, concepts, attitudes, and emotional reactions to war; effects of evacuation; refugee children; dislocations in family life; responses to air raids; delinquency and vital statistics; health and malnutrition.

The author directs attention to the lack of systematic and scientific data, the reiteration of peacetime theories, and the limited information from many war-devastated regions. The findings support many generalizations made from peacetime investigations, such as the importance of family ties and security, the influence of the parents' emotions on the children's reactions, the bearing of adequacy or inadequacy on ability to adjust to new and different situations, and the relation of physical and psychological well-being. A bibliography of 141 titles is included.—R. S.

The young child's experience in war time, L. B. MURPHY. *Am. J. Orthopsychiatry* **13,** No. 4 (Oct. 1943), pp. 497–501.

Basing her observations upon reports from nursery school teachers and analysis of play sessions the author concludes: young children are exposed to the war but little if home life goes on as usual. War may even result in constructive experiences if mothers, rather than maids, care for their own children.

Many "intellectual" problems are caused by the child's confused picture of the world, especially reasons for and justification of fighting. Because of hurry and pressure at home, if the mother works, many children lack a serene, childlike existence and have become more compulsive and mechanized. Records of 50 childrens' play with soldiers indicate that each child integrates the concept of the soldier as a powerful, aggressive force into his own problems, i.e., his need for protection, or for freedom from adult coercion, or release from a feeling of guilt.

The author considers that the problems relating to aggression, to development of values and character which have resulted from the war, are of greater importance in this country than are problems of anxiety which are prevalent in war-devastated areas.—R. S.

Children in jail, M. CONOVER. *The Child* **7,** No. 10 (April 1943), pp. 143–147.

Thousands of children are placed in county or city jails yearly to await court hearing and even to serve sentences. For 1941 a group of juvenile courts serving about 40 per cent of the U. S. population reported 5,407 cases in which children were held in jails or in police stations. To evaluate the problem, the writer investigated in the summer of 1942 large military and industrial areas in Georgia, North Carolina, and South Carolina. The problem is country-wide. Some of the reasons for using jails include: the fee system, where the jailer is paid on the per capita basis and where his income, practically speaking, is the difference between what he is allowed for feeding the prisoners and what he actually spends; lack of institutional facilities; failure to use available alternative resources.

Specific needs include: gaining confidence and understanding of police; making available social diagnoses to law-enforcing individuals to help them understand types of problems and the need for detention in individual cases; providing alternatives such as family boarding homes; providing more assistance to child-welfare workers, especially in rural areas.—M. T. T.

Alcoholism in children, R. S. LOURIE. *Am. J. Orthopsychiatry* **13,** No. 2 (April 1943), pp. 322–337.

Analysis of 20 cases of definite alcoholism in children from 5 to 14 years showed that their drinking tended to come from one of five causes: effort to escape from intolerable intrinsic or extrinsic conditions, identification with or aggression against alcoholic adults, psychopathic personalities, latent or overt homosexuality, or psychoses. The mechanism common to almost all was a seeking for love which the child felt was denied. On the whole the drinking does not persist after the emotional need for it is corrected.—M. T. T.

Infant rearing and problem behavior, W. GOLDFARB. *Am. J. Orthopsychiatry* **13,** No. 2 (April 1943), pp. 249–269.

Since most child care workers are of the opinion that both institutional and foster home care are

needed for children under their jurisdiction, depending upon the individual child and his family situation, the adjustments at the age of 6 to 7½ years of two groups of foster home children were compared with two groups of institution children to note any differences between the groups. The foster children were placed as infants in foster homes while the institution children spent the first three years in an institution before being placed in foster homes.

The findings of the study indicated that institution children show more problem behavior than do foster home children. Further, not any of the institution children were free of problem symptoms, as compared with 13 of the 40 foster children who were. The institution children were more frequently characterized by restlessness, hyperactivity, inability to concentrate, restlessness in sleep, craving for affection, sensitivity, attention-getting behavior, selfishness in play, lack of popularity with other children, disobedience, temper display, and stealing; the foster children showed a greater frequency of passive anxiety. The institution children showed more mental retardation and were experiencing more educational difficulties in school. Not only did the foster children show less problem behavior, but they were more amenable to case work and therapeutic help where they did show problem behavior.—M. T. T.

Effect of size of initial food serving on the eating efficiency of a group of preschool children, M. S. Morse and G. E. Chittenden. *J. Exptl. Educ.* 1, No. 4 (June 1943), pp. 268–279.

Using 16 nursery school children as subjects, two meal-time procedures were used alternately for a four-week period: (1) serving initially three tablespoonfuls of all foods on the menu, and (2) serving one tablespoonful portions. As many additional servings as the child desired were given in both methods. The weekly menus were repeated with each method of serving.

The time taken for each child to eat each meal, the amount of food eaten at each meal, and the length of time between the moment the child sat down and the moment he began eating were recorded, the first two being components of an "efficiency score."

Results were that the children ate more foods in shorter time when they were served a small amount of food initially, although the differences were not significant statistically and there was considerable variation between individual children. The mean eating time of all the subjects was 37.53 minutes.—R. S.

Parent-child conflict in Minnesota families, R. M. Dinkel. *Am. Sociol. Rev.* 8, No. 4 (Aug. 1943), pp. 412–419.

The basic hypothesis of this study was that parent-child conflict must be explained in terms of the divergence of mores of the two generations accompanying the cultural shift from the rural to the urban mode of life rather than in terms of factors peculiar to old age or to youth. The data were collected by interviewing 50 old people from three to five times each. Serious conflict was revealed in 21 cases, which were characterized by much bitterness in the parents. The conflict was, in a large part, a clash of different cultures. These parents expressed strong disapproval of such activities of the younger generation as smoking, drinking, dancing, money spending, failure to attend church, and sexually provocative ways of dressing.

Comparison of the "serious conflict" cases with those with little or no conflict revealed that a lack of family organization was characteristic of the former. This lack resulted from death of one parent, divorce or separation, the inability of the parents to agree or to co-operate, or from the disorganization of one or both parents.—L. H. S.

Some effects of the first year of war upon Nebraska farm families, L. H. Stott. *Nebr. Agr. Expt. Sta. Bull.* No. 348 (July 1943), 22 pp.

This study, made in November 1942, was concerned with some of the wartime problems of farm families, the work adjustments being made, particularly by the women, to meet them, and the effects of these problems and adjustments upon family life.

Loss of family members in 1942 from all causes amounted to 0.78 individual per family. Less hired help also was available; yet more acres of crop were harvested than previously. Thirty-five per cent of the mothers did some work in the field in 1942 as compared with 25 per cent in 1941. Nearly two-thirds of the working mothers of families that lost personnel did outside chores as compared with less than half of them in 1941.

The effects of these adjustments upon family life as seen by adolescent children were for the most part "good." They reported an increase in "good times in the home" and a decrease in "irritability and conflict." But they saw in their parents "more worry and nervousness" associated with

losing family members. For the farm mother to work in the field seemed to inhibit *new* worries and nervousness. The effects of mothers' outside chores were negligible.

The general conclusion was that the effects of the first war year on the whole tend slightly to be favorable.—L. H. S.

The family and individual social participation, W. A. ANDERSON. *Am. Sociol. Rev.* 8, No. 4 (Aug. 1943), pp. 420–424.

This study was made to test the hypothesis that "the social participation of an individual is to a considerable degree a function of the social participation of the family." The practical importance of this hypothesis to the social worker, county agricultural agent, or the minister is pointed out. "The 4-H club agent, for example, will realize that getting the farm boy into his organization is also a matter of interesting the father in the Farm Bureau and the mother in the Home Bureau, and that where the father and mother are active participants, it will probably be easy to interest the sons or daughters."

The basic data of the study were scores on the Chapin Social Participation scale obtained as to members of 1,176 farm families. In terms of these scores, intermember correlations of social participation ranging from +0.55 between fathers and daughters to +0.76 between husbands and wives were obtained.

Data were also presented to show that office holding in organizations tends also to "run in families." All the findings of the study point to the conclusion that "if husbands participate, wives usually do, and if husbands and wives participate, children usually do, so that participation is chiefly a family trait."—L. H. S.

A survey of the attitudes and activities of fathers, L. P. GARDNER. *J. Genetic Psychol.* 63, First Half (Sept. 1943), pp. 15–53.

This study is based upon 300 personal interviews with fathers in which a 50-item questionnaire was followed. Data were obtained concerning the father's age, occupation, education, the amount of time the father spent at home, and other aspects of the home situation. Special study was made of fathers' attitudes toward their parental duties and their children and of their activities in bringing up the children.

Many fathers criticized their own fathers; 6 per cent, their grandfathers. Twenty-four per cent mentioned defects in companionship; 32 per cent, defects in discipline; and 17 per cent, defects in teaching character traits.

The same defects were admitted for themselves with the following frequencies: in provision for welfare, 5 per cent; in companionship, 32 per cent; in discipline, 30 per cent; and in poor teaching of character, 20 per cent.

Sixty per cent gave some routine care to the child, such as feeding and amusing. Forty-eight per cent admitted teasing their children in rather unwholesome ways. Children took their troubles to both parents in 31 per cent of the cases, to mothers in 53 per cent, and to fathers in only 9 per cent.

Father's guidance of children 6 to 12 was mainly along economic, social, and intellectual lines. During adolescence fathers gave some social and intellectual guidance. Only 37 per cent of them gave any sex instruction.—L. H. S.

Dynamics and treatment of speech disorders, J. A. ROSE. *Am. J. Orthopsychiatry* 13, No. 2 (April 1943), pp. 284–289.

Speech difficulties have been given little attention in child guidance clinics since the supposition has been that children's difficulties emerge from something in the parent-child relationship rather than from the psychological growth of the child. The author divides speech disorders into three categories: (1) delayed speech; (2) mutilated or dysalic speech; (3) stuttering and stammering.

He concludes that all are part of the general difficulties of growing up. Speech function becomes the focal point of the ambivalent struggle of a child on the road to self-development; however, the reason for selecting speech over other points of struggle—such as feeding, education, or toilet habits—is not known. It is suggested that around almost any assumption of significant self-responsibility the individual may find a problem which symbolizes the growth dilemma. The individual makes the problem, but its content may be drawn from the culture.—M. T. T.

NUTRITION

Contributed by E. Neige Todhunter of the University of Alabama

The basal metabolism of mid-western college women, M. S. PITTMAN, D. CEDERQUIST, B. L. KUNERTH, V. SHINKLE, M. A. OHLSON, C. M. YOUNG, E. DONELSON, L. M. WALL, H. MCKAY, M. B. PATTON, and G. M. KINSMAN. *Am. J. Physiol.* **140**, No. 1 (Oct. 1943), pp. 33–39.

The basal metabolism of 576 women students, 17 to 24 years of age, living in five midwestern states was determined. Yearly tests were possible on this number of subjects, but no conclusions could be drawn regarding metabolic rates and age.

Basal rates were found to be significantly different in the different states, and this could not be accounted for by temperature alone, though rates were in general lower in the warmer climates. The mean results for all ages in all states were lower than the Dubois standard as modified by Boothby and Sandiford and lower than those found by Boothby *et al.* for women of corresponding age but from different sections of the country.

Basal rates showed little correlation with body temperatures, respirations, or pulse rates. The body temperatures for subjects of this study were lower than accepted standards.

Long term prevention of tooth decay among diabetic children, J. D. BOYD. *Am. J. Diseases Children* **66**, No. 4 (Oct. 1943), pp. 349–361.

Dental data were obtained on 111 diabetic children, 52 boys and 59 girls, who were all under observation for at least three years. The children ranged in age from 14 months to 14 years.

The data show that caries was arrested in children maintained continuously on the diabetic diet. This diet fully met all known nutritional needs and basically consisted of liberal amounts of milk, eggs, meat, vegetables, and fruits supplemented with one teaspoon cod-liver oil daily regardless of season or age.

Caries developed further in children who failed to follow the dietary regimen. The commonest omission from the diet of these children was cod-liver oil, but pronounced deviations from the prescribed diet were also frequently observed.

The author concludes that there is adequate statistical evidence to show that the incidence of caries in childhood can be markedly lessened by dietary means.

The inadequacy of eight synthetic B vitamins for the nutrition of puppies—unknown factor (factors) in yeast and probably liver, J. P. LAMBOOY and E. S. NASSET. *J. Nutrition* **26**, No. 3 (Sept. 1943), pp. 293–302.

Evidence is presented for the existence of another vitamin factor or factors required by puppies in addition to the eight known B vitamins, thiamin, riboflavin, nicotinic acid, pantothenic acid, pyridoxine, choline, inositol, and p-aminobenzoic acid. Puppies receiving a basal diet supplemented with the above vitamins developed dermatitis, loss of hair, and unhealthy skin and coat and died in 100 to 150 days. Addition of dry whole yeast or concentrates of yeast or liver prevented the appearance of deficiency symptoms and gave good growth.

Some results of feeding rats a human diet low in thiamine and riboflavin, G. M. HIGGINS, R. D. WILLIAMS, H. L. MASON, and A. J. GATZ. *J. Nutrition* **26**, No. 4 (Oct. 1943), pp. 347–359.

Rats were fed a diet composed of foods commonly appearing on American tables but low in thiamin and riboflavin. The diet was made adequate with regard to vitamins A and D and iron and calcium. The animals failed to grow, developed hypochromic anemia, showed mild fatty degeneration of the liver and very low concentration of thiamin and riboflavin in the liver, skeletal muscle, kidneys, and testes.

Addition of riboflavin, thiamin, and niacin did not improve growth to the same extent as was obtained when the white flour of the diet was replaced by whole-wheat flour. Normal blood values were obtained when thiamin and riboflavin were added to the diet, but addition of these vitamins and niacin failed to produce a normal liver, thyroid, or pituitary gland.

Biotin, pantothenic acid, and riboflavin balances of young women on a milk diet, J. GARDNER, L. NEAL, N. H. PETERSON, and H. T. PARSONS. *J. Am. Dietetic Assoc.* **19**, No. 10 (Oct. 1943), pp. 683–684.

The biotin, pantothenic acid, and riboflavin contents of urine and feces of three healthy young women were studied when mineralized milk was the only food eaten. Vitamin C supplements were given and caramel candy was allowed as a source of calories. The total biotin output was 73 to 137 per cent of the intake, with approximately half being excreted in the feces. The total output of pantothenic acid almost equaled the intake, and

only 6 per cent was in the feces. There was considerable destruction of riboflavin in the body, only 55 per cent of the intake being excreted and this mainly in the urine.

Calcium pantothenate for human achromotrichia, I. KERLAND and R. P. HERWICK. *J. Am. Med. Assoc.* **123,** No. 7 (Oct. 16, 1943), pp. 391–393.

The use of pantothenic acid (and other vitamin factors) for restoring color to gray hair has been widely popularized but without adequate experimental evidence for its value. Further study of this question was undertaken with 21 women and 6 men, 34 to 62 years of age, who had hair varying from beginning gray to white. They volunteered to take 20 mg of calcium pantothenate daily for six months in addition to their regular diet, which was apparently adequate. Samples of hair were taken at the beginning, during, and at the close of the experiment, and color comparisons were made by an expert in the field of color analysis.

No significant change in hair color was observed by analysis, nor did any of the subjects feel that there had been any color restoration. Some considered that graying had increased. The conclusion was that calcium pantothenate was of no value in restoring color to gray hair.

The role of riboflavin in blood regeneration, H. SPECTOR, A. R. MAASS, L. MICHAUD, C. A. ELVEHJEM, and E. B. HART. *J. Biol. Chem.* **150,** No. 1 (Sept. 1943), pp. 75–87.

Seven dogs were maintained on riboflavin-deficient diets and all showed the usual symptoms of such deficiency. Thirty micrograms of riboflavin per kilo was found to be the daily minimal level of consumption for good growth in young growing dogs, and 15 micrograms may suffice for weight maintenance in adult dogs.

Mild anemia occurred in the absence of riboflavin, and a severe anemia was produced by slight bleeding; recovery was not possible without riboflavin. Study of the hemoglobin level, erythrocyte count, and the hematocrit values showed that riboflavin played a role in determining the size of new red blood cells formed during recovery from anemia.

The natural occurrence of riboflavin deficiency in the eyes of dogs, T. D. SPIES. *Science* **98,** No. 2547 (Oct. 22, 1943), pp. 369–370.

In families showing symptoms of dietary diseases, the dogs which ate the scraps from the family table were also found to suffer from nutritional deficiences. Four dogs examined were emaciated, weak, and sluggish and showed diarrhea, salivation characteristic of black tongue, and eye changes characteristic of riboflavin deficiency. Administration of 150 mg nicotinic amide relieved the black tongue in 24 hours, but there was no change in the eyes until riboflavin was given. It is concluded that deficiencies occur as mixed diseases rather than as single entities and that they occur universally among humans and animals when the diet is inadequate.

The determination of ascorbic acid in whole blood and its constituents by means of methylene blue; macro and micromethods, A. M. BUTLER, M. CUSHMAN, and E. A. MACLACHLAN. *J. Biol. Chem.* **150,** No. 2 (Oct. 1943), pp. 453–461.

A method is described by which samples of capillary whole blood as small as 0.2 cc may be accurately analyzed for ascorbic acid. The method depends upon a photosynthesized reaction of methylene blue and ascorbic acid and is considered to be more specific than the commonly used indophenol procedures. It can be applied to whole blood, plasma, and the layer of white cell platelets of centrifuged oxalated blood.

The effectiveness of a mixture of arginine, glycine, and cystine in the prevention of the so-called vitamin B_4 deficiency in the chick, G. M. BRIGGS, JR., T. D. LUCKEY, C. A. ELVEHJEM, and E. B. HART. *J. Biol. Chem.* **150,** No. 1 (Sept. 1943), pp. 11–15.

Earlier workers reported lack of growth and atrophy of leg muscles in chicks on a given diet and reported that B_4 was essential for its prevention. Using the so-called vitamin B_4-low ration of earlier workers, the authors found that supplementation with additional arginine, glycine, and cystine prevented the typical paralysis and gave good growth in chicks.

Developing a Race with Perfect Eyesight

At a fall nutrition meeting Dr. Russell M. Wilder, Mayo Clinic, said he believed it possible through diet to develop men who would need no spectacles.

TEXTILES AND CLOTHING

Contributed by Esther Chapman Morse of the University of Tennessee

Role of textiles in camouflage. *Textile World* 93, No. 7 (July 1943), pp. 68–69.

Camouflage in wartime makes use of two general classes of textiles: (1) impregnated cotton Osnaburg and burlap and (2) nets. The Osnaburg and burlap employed must be mildew-resistant, flameproof, and durable when exposed to weather. Eleven standard camouflage colors may be used. Some pigments are infrared-resistant. The camouflage fabrics, cut into 2-inch strips and wound into 300-foot rolls, can be used for garnishing nets after being cut into 5-foot lengths. Many types of net are used, ranging in size from 22 x 22 feet to 45 x 45 feet.

Uses for camouflage fabrics are infinite as the Army insists it must have a camouflage net for "anything on wheels that is shipped overseas." One 30 x 30 foot garnish net takes 100 square feet of netting plus 800 yards of 2-inch burlap or Osnaburg. Soldiers when dressed in olive drab No. 7 blend with their shadows when photographed. White and olive reversible parkas aid ski troops. Airplane propellers and cowls are covered to prevent light reflection. Reversible jungle suits are green-camouflaged on one side and brown-camouflaged on the other. Camouflaged ponchos are used by the Marine Corps.

Sources of data on camouflage are listed.

Soil suspension method for testing mildew resistance of treated fabrics, M. S. FURRY and M. ZAMETKIN. *Am. Dyestuff Reptr.* 32, No. 19 (Sept. 13, 1943), pp. 395–398.

The soil-suspension test for mildew resistance was developed as an improved, rapid, and dependable method of testing. Samples to be tested were prepared for the breaking strength test by the Ravel Strip method, inoculated by immersion in soil suspension, and then incubated under controlled temperature and humidity conditions for from 5 to 14 days. The effectiveness of the mildew-resistant treatment was determined by the results of the breaking strength test of the inoculated test strips compared with the original treated fabric.

The microorganisms present in the soil were isolated and identified. Fabrics were inoculated with the isolated organisms, and the amount of deterioration caused by each was determined.

Nine finishing treatments were applied and tested. Five were effective, and one other would be satisfactory under many conditions. This test is severe and greatly accelerates the deterioration which would normally be encountered.

French make fine fabrics from bark, cactus, seaweed fibers. *Textile Age* 7, No. 9 (Sept. 1943), pp. 103–105.

With the fall of France, German wives and sweethearts flooded France and bought up French dresses until all stocks of fabric were depleted. The French then used their ingenuity. One man has built up a thriving business making a high-priced but supple, novel fabric out of strips cut from green and yellow cactus plants, goats' hair, cats' hair, clippings from French poodles, bark from trees found along the Spanish frontier, and seaweed.

Making over old clothes was abandoned when such articles as thread, hooks and eyes, buttons, and fasteners became unobtainable.

A rapid colorimetric method for the quantitative determination of starch in textile fabrics, R. L. MCEWEN. *Am. Dyestuff Reptr.* 32, No. 17 (Aug. 16, 1943), pp. 371–373.

The usual methods for determining the percentage of starch in textile fabrics based on the change in weight of the fabric when treated with a starch solubilizing enzyme require a great deal of time and superior technique to obtain accurate results.

A colorimetric method recently developed has proved more rapid than the gravimetric methods and is an accurate method of determination both for small and relatively large amounts of starch in textile fabrics. The method involves cutting the sample into small pieces, solubilizing the starch with a cold solution of perchloric acid, and estimating the starch colorimetrically with iodine. The readings obtained on a photoelectric colorimeter (red filter) are evaluated through the use of standard curves calculated from known quantities of purified starch. Standard curves for the particular type of starch studied must be used since different types of starch give different concentrations of iodine color with the same weight of starch.

Properties of synthetic fibers. *Textile World* 93, No. 9 (Sept. 1943), pp. 108–120.

A group of charts has been arranged especially to aid the textile men in choice of synthetics for specific applications. Eight types of synthetic

fibers are now commercially available in this country—viscose rayon, cuprammonium rayon, acetate rayon, Nylon, Vinyon, vinylidene chloride, casein, and Fiberglas. Data on the properties of each of these fibers are presented in charts suitable for reference and comparison.

Information on the manufacture, properties, and uses of other synthetic fibers—the production of which has been suspended for the duration and those which are produced in Europe—is also presented in chart form.

The relation of the A.S.T.M. to the textile industry, H. J. BALL. *Am. Dyestuff Reptr.* 32, No. 20 (Sept. 27, 1943), pp. 419–422, 428.

At the forty-sixth annual meeting of the American Society for Testing Materials, the president gave a concise picture of the accomplishments of Committee D-13 through which ASTM has influenced the textile industry. When Committee D-13 was organized, methods of testing textiles were chaotic. Work began with standardizing the breaking strength test and atmospheric conditions. Other standard tests, with the standardization of equipment for making the tests, were later developed: tests for bursting strength, twist, thickness, identification of fibers in mixtures, colorfastness to light. Fundamental textile definitions were worked out and the S and Z nomenclature for designation of direction of twist. The latter has been accepted by the International Standards Association Committee 38 on textiles.

Some of the branches of the textile industry for which Committee D-13 has developed standards and specifications are: the cotton industry in all of its phases, tire textiles, woolen and worsted trade, glass industry, and the rayon industry. Interest in textile commodities as they are used by the ultimate consumer—resulting from educational work by women's groups, schools, and colleges—has created a demand for tags and labels. Tentative specifications have been established for broadcloth, sheeting, terrytoweling, corduroy, and blanketing.

Through the committee's work the textile industry has become aware of the need for and value of statistical control. The committee has pooled the experience and knowledge possessed by representatives of government agencies, by experts in the research, developmental, and testing laboratories of large industries and consumer establishments, and by research workers in textile schools and colleges. Officers and committee chairmen desire standards that are reliable, unbiased, practical, technically correct, and comprehensive.

Move to prevent clothes rationing, G. MONTGOMERY. *Textile World* **93,** No. 8 (Aug. 1943), pp. 72–73.

The program advanced by Donald M. Nelson, chairman of the War Production Board, aims: (1) to produce an adequate volume of fabrics of the most essential type, including those in the multiuse class; (2) to develop merchandising methods which will extend the available supply of clothing; (3) to educate the public on obtaining the greatest use of fabrics and finished products.

Stocks of fibers are available, but industry is limited by inadequate facilities, machine-part shortages, manpower shortages, and production cost which is out of line with prices under government ceilings.

The government aims to facilitate the delivery to the mills of material, repair parts, and equipment; to avoid transportation tie-ups; and to encourage three-shift operation where possible. To prevent "pirating" of labor, the textile industry has been placed in the essential category. Allocation of goods under order directly from seller to buyer does not seem necessary to Mr. Johnson, director of the textile division of the Office of Civilian Requirements, but may be in some specific instances. The President's concern over the civilian supply is shown in his directive to Arthur D. Whiteside, vice-chairman of WPB in charge of the OCR, to take over jurisdiction of manufacture and distribution of goods essential for civilians.

Government textile officials hope the current output may be maintained but warn that there will be considerably less clothing because inventories have been drained. Two factors may further darken the outlook: unexpected military demands and increased Lend-Lease needs.

British mills plan postwar cut in styles and variety, B. A. COOPER. *Textile Age* **7,** No. 10 (Oct. 1943), pp. 80–89.

Britain's cloth manufacturers resented official intervention but have learned many lessons, particularly the lesson that large assortment production slows down output. Many manufacturing houses plan never to return to wide ranges. Women's and men's hosiery and underwear styles after the war will be reduced 80 per cent as compared with 1938.

The utility program of using specific fabrics for

specific purposes has increased production per machine and employee 25 per cent.

Makers of outer garments are permitted more style freedom but must conform to a standard scale of sizes, which is likely to remain after the war. Limited purchasing has impressed consumers with the desirability of higher quality, and quality standards after the war are likely to result. Hosiery shades will probably be greatly reduced; some return to the old wide variety is expected but mainly in the smaller firms.

Cotton fiber strength study. *Textile Research* **13**, No. 9 (July 1943), pp. 17–19.

A newly developed cotton fiber strength testing machine, known as the Pressley Cotton Fiber Strength Tester, has been found to provide results which compare favorably with the Chandler round-bundle method of determining tensile strength of cotton fibers and is much more rapid. Conversion equations have been derived for changing the Pressley Index to pounds per square inch.

Studies made at the Stoneville laboratories indicated that there was a statistically significant difference between means for operators and for machines. Careful observations suggested precautions for holding the differences down. With proper precautions fairly consistent results can be obtained.

Substitutes for sole leather, W. GALLAY. *Dyestuffs* **38**, No. 3 (Sept. 1943), pp. 73–78.

The use of leather for soles of shoes is traditional. The advantages of leather for soling are: flexibility, resilience, tensile strength, permeability to air and water, hence thermal insulating, and good behavior in shoe manufacture. The disadvantages include: poor resistance to high temperature and to the actions of various chemicals, high water absorption, inferior resistance to abrasion, lack of uniformity, low coefficient of friction on smooth surfaces, and dependency of properties on moisture content.

Comparison of these properties in leather with properties of certain other materials for soling shows that the advantages can be duplicated except for permeability to air and water vapor. There are several reasons for doubting the importance of ventilation in the soles of shoes. Two classes of substitutes are mentioned: (1) rubber, both natural and synthetic and (2) thermoplastics or elastomers. These differ principally in that the former can be vulcanized and is elastic while the latter cannot and therefore they have high degree of permanent set.

Experiments have been carried out on the use of thermoplastics with a woven fabric filler with notable results. Leather for soling shoes will have serious competition in the future.

Fire resistant duck, J. P. REDMOND. *Am. Dyestuff Reptr.* **32**, No. 18 (Aug. 30, 1943), pp. 375–378.

Fire-resistant cotton duck is one of the most highly developed fabrics of military significance. By December 1942 the inadequacy of Federal (performance) Specification CCC-D 746 was evident, as compounds became scarce and finishers substituted unsatisfactory substances. Hence Tentative Specification JQD 242 was issued restricting the raw materials to be used as well as giving the performance requirements and also requiring each finisher to register his quantitative formula in a confidential file. The fabrics must meet fire, water, weather, and mildew specifications. Basic data on chemical components indicated the desirability of requiring the use of chlorinated paraffin, antimony oxide, calcium carbonate, a mildew inhibitor, color pigments, and a film-forming resin. Certain materials used as fire-resistant finishes were found to decompose chlorinated paraffins at 175° C as indicated by HCl evolution. The decomposition can be retarded by the addition of other materials. All materials used are covered by Tentative Specification JQD 242. Stable and unstable fire-resistant finishes of the chlorinated paraffin type and the method and possibility of conducting stability tests are discussed.

Shoes for Europe's Children

In France, it was estimated that about 8,000,000 children lacked shoes at the beginning of the school year in October 1942. . . . Buying permits for shoes were distributed for children under 16 in Belgium at the rate of one pair for every 100 children.—"The Health of Children in Occupied Europe," International Labour Office.

From the Editor's Basket . . .

"The American Family in World War II" is the subject of the September 1943 issue of *The Annals of the American Academy of Political and Social Science,* which is well worth the $2 it costs. It opens with a most interesting historical paper by James H. S. Bossard, "The Family in Past Wars," and ends with a discussion of "Marriage and the Family After the War" by Ray E. Baber.

Eleven articles deal with the changing family structure and adjustments; five with special problems of family adjustment. Order from American Academy of Political and Social Science, 3457 Walnut Street, Philadelphia 4, Pennsylvania.

"Physique, Personality and Scholarship: A Co-operative Study of School Children" is a 705-page, two-dollar, planographed publication of the Society for Research in Child Development, National Research Council, Washington 25, D. C. It is a collection of monographs from the Psychological Clinic, the Department of Child Hygiene, and other departments of Harvard University.

"The Selection and Training of Volunteers in Child Care" is an excellent 36-page pamphlet prepared by the U. S. Children's Bureau in cooperation with the Office of Civilian Defense and sold for 10 cents by the Superintendent of Documents, Washington, D. C.

It was written for child-care committees and community agencies responsible for training child-care aides. An appendix has a self-analysis sheet for child-care volunteers, adapted from one used in Gary, Indiana; a list of questions for the lecturer to ask herself; and another list for the discussion leader. The films listed as suitable for use in training volunteers would also be excellent for educating the community as to the work of child-care centers.

Having trouble with a tax-conscious school board? Or with a community which lacks understanding of what good schools can do? Then send 25 cents to the Editorial Conference Board of New York State, 152 Washington Street, Albany, New York, for a copy of "What Education Our Money Buys."

It is such an attractive pamphlet that even the tired businessman would find the reading easy. And the content is convincing enough that perusal should get results. Its theme is: Spend less than $115 per year per student and you will not have effective up-to-date teaching.

The research workers responsible for the publication "did not labor under the illusion that money is the only determiner of the character of a school." They reported that 48 per cent of the unusually good educational practices found in the study did not of themselves cost anything. But these good practices are "a kind of dividend on the resourcefulness, imagination, and intelligence" of the teachers which the salaries are able to attract. Homemaking education is one of the 12 facets of the problem reported upon.

"Meat Saving Recipes" is a new 30-cent, 35-page publication of Teachers College, Columbia University, New York City. It was written by two home economists on the faculty: Natalie K. Fitch and Mary Agnes Davis.

"Vegetable Dyes: Make Your Own from Barks, Weeds, Berries, Fruit." That is the title of a fascinating little 55-page, 35-cent pamphlet written by Dr. Douglas Leechman, archaeologist of the National Museum, Ottawa, Canada. Order from Oxford University Press, Toronto. It is written for the beginner who wants to dye her own fabrics, hence gives only the simplest of instructions and basic recipes.

"The Bible story of Adam and Eve told centuries ago the same truth that science has shown today: that all the peoples of the earth are a single family and have a common origin. . . .Aryans, Jews, Italians are not races. . . .Jews are people who practice the Jewish religion. . . .The so-called 'Jewish type' is Mediterranean type, and no more 'Jewish' than the South Italian. Wherever Jews are persecuted or discriminated against, they cling to their old ways and keep apart from the rest of the population and develop so-called 'Jewish' traits. But these are not racial or 'Jewish'; they disappear under conditions where assimilation is easy. . . .

"Race prejudice isn't an old universal 'instinct.' It is hardly a hundred years old. Before that people persecuted Jews because of their religion,

not their blood; they enslaved Negroes because they were pagans—not for being black. . . .Freedom from fear is the way to cure race prejudice."

So read a few of the sentences from a terse but scientifically sound pamphlet "The Races of Mankind" brought out last October by Public Affairs Committee, Inc., 30 Rockefeller Plaza, New York City. Authors are two well-known anthropologists, Ruth Benedict and Gene Weltfish of Columbia University. Price, 10 cents.

It's the latest in anthropological findings distilled into 31 pages, put into popular style, and illustrated with amusing cartoons. It is in language high school students would find interesting but could be used effectively with adult groups as well.

"Race and Cultural Relations," a 60-page, 30-cent pamphlet put out by the National Education Association, presents much the same material but is for teachers rather than for pupils or casual readers. As with the other "resource units" prepared by NEA's National Association of Secondary-School Principals and its National Council for the Social Studies it opens with an analysis of the subject and devotes part 2 to teaching aids. Ruth Benedict wrote part 1 (44 pages); Mildred P. Ellis, part 2 (15 pages).

For those with a long suppressed desire to make pottery "Home Craft Course in Pottery" by Mrs. C. Naaman Keyser might provide many enjoyable hours. It explains step by step how to make and decorate pottery. The "course" is given in three little pamphlets of 28 to 36 pages. Volume 2 is "Home Craft Course in Pennsylvania German Pottery"; volume 3, "Home Craft Course in Pennsylvania German Design." Readers may get the books for the wholesale price of 60¢ each if they mention the JOURNAL when they order from Mrs. Keyser, Plymouth Meeting, Pennsylvania. Cost otherwise, $1.

Pamphlets published some moons ago, not yet noted, but worth ordering: "What's Cooking? A Cookbook for 'Teen-Agers—and Others: How to Win Favor through Flavor," Joseph Burnett Company (the extract firm), 437 D Street, Boston; "Fish" and "Household Equipment" (part of Better Buymanship, Use and Care series), Household Finance Corporation, 918 North Michigan Avenue, Chicago; "Cooking for Health," brightly written, amusingly illustrated, American Stove Company, St. Louis; "How to Take Care of Your Clothes," attractively gotten up, Dan River Mills, Danville, Virginia. Single copies of each, free.

Common ironing pitfalls and ways to avoid them, projects for students, suggested ironing routines are topics presented in "Modern Home Ironing," a 16-page pamphlet put out by Westinghouse Electric & Manufacturing Co. Any teacher can get a free desk copy; 5 cents is the charge for quantity orders. Order from Westinghouse Consumer Education Department, Mansfield, Ohio.

"World Needs for U. S. Food and Fiber" is a 71-page, 50-cent pamphlet written by Dr. John D. Black, Harvard economist, published by the National Planning Association, 800 Twenty-first Street, N.W., Washington 6, D. C., and released for distribution only five weeks ago. Anyone wanting to understand national and international food policies will find it excellent reading.

Dr. Black is a member of the economic panel advising the United Nations Interim Commission on Food and Agriculture. The NPA is an organization whose members are drawn from varied fields of business, labor, government, the sciences, and the professions and who share a fact-finding and socially responsible attitude.

A good chart showing nutritive values of average servings of 123 common foods is being distributed by Consumer Service Department, General Foods Corporation, 250 Park Avenue, New York City. It is the fourth edition of the chart. It presents nutritive values in terms of percentages of an adult's needs for a day. Free.

"Boy's Button-On Waists, Shirts, Junior and Sport Shirts" is a 5-cent, 14-page U. S. Department of Commerce pamphlet detailing Commercial Standard CS14-43 for the manufacture of such garments. The standard became effective for new production from August 20, 1943, after acceptance by the trade. Order from Superintendent of Documents, Washington, D. C.

"Carpets and Rugs" by Madge E. Dilts of the home economics department of The Hoover Company, North Canton, Ohio, is a free, 38-page pamphlet which in its new edition has a two-page statement of changes in carpets and rugs caused by wartime restrictions.

News Notes . . .

General

Frances Stern Honored. 1943 brought to Frances Stern, founder and chief of the Food Clinic of the Boston Dispensary, the honor of having the Clinic renamed the "Frances Stern Food Clinic" in celebration of its twenty-fifth anniversary. A chair of nutrition also was established at Tufts College Medical School on July 4, her 70th birthday, "to further research and educational activities of the Clinic."

Dr. Wile Dies. Ira S. Wile, physician, prolific author, and lecturer, who died in New York City October 9, was a member of the original New York group that formed a home economics organization there in 1908, a few weeks before the American Home Economics Association was established and he became a charter member. A founder of the New York school lunch system and of the Manhattanville Nursery, he was active in many professional organizations close to the field of home economics.

The Marlatt Collection of Cookbooks. About 5,000 books, 600 of them cookbooks, from the collection of the late Dr. Abby L. Marlatt have been presented to Kansas State College, her alma mater, by her niece, Abby Lindsey Marlatt, '38. The cookbook collection is international in scope and ranges in date of publication from 1534 to the present, including 116 titles published before 1800. All but 250 appeared earlier than 1900.

Alabama

Alabama College. Lois Ackerley was interviewed over station WAPI on the "Contribution That Everyone Can Make in the Conservation of Food."

The institution management classes are having experience in both the College kitchen and the elementary cafeteria. The enrollment of institution home economics majors has increased.

Corporal Vonceil Hines, '41, an instructor in the WAC Cooks and Bakers School at Fort Oglethorpe, won a blue ribbon in an exhibit of visual aids used by the 16 instructors in the school.

Alabama Polytechnic Institute. New staff members are: Dr. Lelia Doman, formerly of the University of California at Los Angeles, professor of household economics; Ruth Parkman, instructor in vocational home economics; Jewel Golden, assistant professor; and Carmen Croft, instructor in art and retailing.

Home economics seniors are operating a canteen in the student center as part of their training in institution cookery.

Huntingdon College. Virginia Catherine Coker has been appointed head of the home economics department.

Judson College. Mildred Meroney has joined the staff to teach clothing, home planning, and interior decoration.

Extension Service. Mary Dell McCain, formerly home demonstration agent in Walker County, was appointed girls' state 4-H club leader on June 1 to succeed Elizabeth Deloney, who resigned to marry A. R. Saxon of Farmington, Georgia.

Levice Ellis, home demonstration agent in Hale County for six years, has succeeded Mrs. John R. Love as extension clothing specialist.

Marie Amos, home demonstration agent in Cherokee County for five years, was recently appointed nutritionist to succeed Mildred Simon, who resigned to be married.

Farm Security Administration. Mrs. Nonnie Wood Herron is studying at Columbia University.

An accelerated program of food production and preservation has become an increasingly important objective of low-income farm families as a result of the Food Fights for Freedom program. Many Alabama farm families are now making their own American and cream cheese and storing homemade noodles for use in stretching their winter meat supply. In the peanut section, homemakers are canning peanut butter for use at home and in school lunches.

Arizona

Arizona Nutrition Council. When the Council met October 16 at the University of Arizona plans were made for the Food Fights for Freedom program during Thanksgiving week. Ethel M. Thompson of the University staff was elected chairman of the Council for 1943–44.

State Department of Vocational Education. "How Homemaking Teachers Can Adjust the Curriculum to War and Postwar Problems of Home

and Family Life" is the theme of the following conferences for homemaking teachers sponsored by the Department throughout the state: August 23 to 27, Prescott High School, high school homemaking teachers; November 5 and 6, Gila Junior College, high school and elementary homemaking teachers; November 19 and 20, Bisbee High School, homemaking teachers in the southern part of the state; December 4, Monroe School, Phoenix, elementary homemaking teachers; February 1944, Glendale High School, high school and elementary teachers; March 1944, Phoenix Union High, elementary and high school homemaking teachers. The teachers co-operated in the planning of the programs.

The educational program in nursery schools using Lanham Act funds is being supervised by the homemaking division of the Department.

Arizona State Teachers College, Flagstaff. Byrd Burton has succeeded Bess Chappell as head of the home economics department.

Arizona State Teachers College, Tempe. Mrs. Cleo Woodall has joined the staff to direct the home management house and nursery school.

University of Arizona. Loretta Schloppoff is the new instructor in foods and nutrition.

Elizabeth Cameron, assistant professor of home economics, is in charge of the home management house and nursery school.

Arkansas

Arkansas Home Economics Association. Vice-president Ruth Powell presided at the executive board meeting on November 6 in Little Rock. The following appointments were made: Mary J. Scott, State Health Department, treasurer in May E. Dvorachek's absence from the state; Ruth Graham, FSA, secretary, to replace Mrs. Anna Grey, who has joined her husband at an Army post; Juanise Johnson, FSA, chairman of the county units committee; and Ehrline Rowden, OPA, director of the consumer interest work. No plans were made for an annual meeting as it was decided to leave the decision on holding one to the membership. The board will meet again in January.

State Department of Education. Marie White of the U. S. Office of Education conferred with Alma Keys and her staff in November on developing improved programs in family living where home economics teachers and vocational agriculture instructors work co-operatively.

The vocational staff participated in a meat preservation conference held at Arkansas A. M. & N. College November 17 and 18. Mrs. Eleanor J. Leonard and Zola Short of the FDA were instructors, and B. Francioni of Louisiana State University demonstrated the cutting of meat.

Arkansas State Teachers College, Conway. Anna Carol Fults is on leave this year for study at Ohio University on a fellowship awarded by the General Education Board.

University of Arkansas. Grace Henderson, a member of the Cornell staff for 10 years, will become head of the home economics department this spring after completing requirements for her PhD at the University of Ohio. She will succeed Isabella Wilson, resigned.

Farm Security Administration. Annice Rye and Joe Alexander are now Food Distribution Administration nutritionists for hot lunch programs in schools over the state.

California

California Home Economics Association. The second annual council meeting was held in Fresno from October 8 to 10. Officers of the state association are provided in turn by each of the six sections, and this year they come from the central section. Olive Daniels of Exeter is president, and Belle Eleanor Short of Fresno was elected secretary-treasurer to replace Gladys Prunty of Tulare, who was injured in a bus accident and unable to resume her duties at the time of the council meeting.

The northern section will provide next year's officers. Florence V. Ritchie is president-elect and Mrs. Ocie Watt, secretary-treasurer-elect. Both are from Chico.

The luncheon program during the council meeting, at which California delegates to the AHEA's Wartime Institute spoke, served as one of the regular meetings of the central section.

Observing Home Economics Day on either October 16 or 23 helped further to promote a feeling of unity between the sections.

The state membership chairman is enlisting the aid of section chairmen in contacting the "graduate inductees" brought into the Association last June from colleges and universities of the state. Where these new members have gone to sections other than the one with which they affiliated, the new address is being sent to the proper membership chairman.

Some section presidents report a decrease in the number of meetings to be held during the year but state that they are reaching their members through mimeographed newsletters.

Connecticut

State Department of Education. N. Searle Light was elected president of the National Association for Nursery Education at the 10th biennial conference in Boston October 22 to 25.

Harriet Nash of Westport is consultant on nursery education for Connecticut. Lanham Act funds have permitted organization of 18 nursery school units and 15 school-age units.

Clara Allen is consultant on school-age programs.

Mrs. Edith M. Cushman is the new supervisor of school lunches.

State Nutrition Committee. The nutrition in industry committee prepared six nutrition articles for publication in *Connecticut Industry* and is also preparing popular monthly articles for use by house organs of industrial plants.

New London Nutrition Committee. The committee is participating in the Food Fights for Freedom campaign through a program in the schools and a Nutrition Information Center.

Connecticut College. Three classes of cadet nurses are being taught foods and nutrition by Mildred Burdett, Martha Stewart Tupper, and Evelyn Craig. New members of the staff include Evelyn Craig, Katherine Long, and Ruth Gould.

University of Connecticut. Berenice Mallory and Beulah Coon of the U. S. Office of Education worked with the faculty from December 2 to 4 on a study of the curriculum.

Hartford. New homemaking teachers in the elementary schools are Mary Agnes Ahern, Bernice Cole, Dorothy M. Kunkel, and Mary K. Lynch.

Recent marriages include Marcia Fischbeck to Frederick H. Grimm; Elizabeth Leeds to Alfred C. Gammons; Maxine V. Collins to Lt. William David Graham.

Mary C. Shea, publicity chairman for the Hartford Nutrition Committee, resigned from the Connecticut Dairy and Food Council to marry Otto Goldkamp, USNR, of New York City.

New Britain. Mary Campbell, supervisor of elementary schools, and Elizabeth Hungerford, supervisor of homemaking, are co-operating on a nutrition program for the elementary grades. The time of two homemaking teachers has been scheduled two half days a week for work with the younger children and their teachers.

New Haven. At the November meeting of the New Haven Home Economics Club Estelle Keane of the Remington Arms Company described a nutritionist's work in an industrial plant.

Delaware

Delaware Home Economics Association. The guest speaker at the annual fall meeting on October 22 at the P. S. duPont High School in Wilmington was Miss Lee Ya-Ching of the United China Relief, who gave a vivid account of the work of the Chinese in their war effort.

Another feature of the meeting was a report of the AHEA's Wartime Institute by Mrs. Anita Kurtz, president of the Delaware Association.

Women's College, University of Delaware. Helen Rathbun, former instructor in foods and nutrition, is now an ensign in the WAVES and stationed in Seattle. Her successor is Miriam Macpherson, a graduate of Oregon State College.

Marjorie Reinhardt is taking Alma McDougall's place as dietitian and instructor in institution management. This year Miss McDougall is dietitian at Sarah Lawrence College.

Amy Rextrew talked on "Homemaking Education and the Four Freedoms" at a recent meeting of colored home economics teachers of the state.

Wilmington Public Schools. New members of the home economics teaching staff are: Mrs. Ruth Taylor Sargent, a '43 graduate of the University of Minnesota; Mrs. Mary Strohecker de Jongh, a '42 graduate of The Pennsylvania State College; Mrs. Elizabeth Little Harner, a '28 graduate of Temple University whose husband is overseas with the Medical Corps; and Mrs. Lucile Rudinger Lininger, a '25 graduate of Kent State University in Ohio, who previously taught in public and private schools in Ohio.

Within the past year seven nursery schools have been established in the Wilmington schools for children from 2 to 6 years whose mothers are engaged in war work. Some of the nurseries secure their food from the school cafeterias, while others maintain their own food units.

District of Columbia

D. C. Home Economics Association. A tea held on November 1 at Columbian House on the George Washington University campus opened the 1943–44 year of the Association. Guests of honor were Jessie Harris, president of the AHEA, and Gladys Wyckoff, executive secretary.

Homemakers Section. "The Home We Want for Today and in the Postwar Era" was the theme of a panel discussion at the section's November 9 meeting at the Washington Gas Light Company. Mrs. Grace Kirkpatrick was discussion leader.

Florida

Florida Home Economics Association. Because of the difficulties of wartime travel and overcrowded hotel facilities, the Association's annual meeting was replaced by a working conference at the Hotel Thomas in Gainesville. Those attending included members of the executive board of the state association, chairmen or representatives of the nine district associations, and chairmen of the standing state committees. After a round-table discussion the group divided into committees. Ways of strengthening the district associations, student clubs and their work, ways the state association can serve its members, and ways that the association can mobilize its strength to be utilized best for war work were problems considered by the committees. Reports and summaries were made to the entire conference, and a plan of work was outlined.

The Food Fights for Freedom campaign was launched in Florida counties through the coordinated efforts of a committee representing the Defense Council, Food Distribution Administration, local price and rationing boards, schools, and various persons asked to participate.

The State Department of Education with the co-operation of the home economics staff of Florida State College for Women is holding a series of all-day Saturday conferences for home economics teachers throughout Florida. The meetings are being held in 16 sections of the state so that a minimum of time, travel, and expense to the teacher is required. The group divides into committees to consider problems in different areas in home economics. The committees determine skills to be attained by home economics pupils at various grade levels in the selected areas of home economics in wartime.

Georgia

Georgia Home Economics Association. As this is the Association's 25th anniversary year, the members want to do "something extra special" if ODT will permit them to get together. A $100 war bond has been purchased, and the members hope to buy others later. Increased membership in the Association is another goal.

Hawaii

Mrs. Roosevelt's Visit. On her return trip from the South Pacific, Mrs. Eleanor Roosevelt visited the Offices of Civilian Defense and the neighborhood units and spent some time with Mrs. Caroline Edwards, director of emergency feeding. As a representative of the American Red Cross, she also inspected the various units and had lunch at the beach home where the Red Cross Canteen group entertains convalescents from military hospitals. She spoke informally to the men before leaving to tour hospitals and meet with various groups engaged in war work.

Territorial Nutrition Committee. The committee has published a 25-cent set of five colored posters and charts that emphasize good nutrition with locally produced foods.

University of Hawaii. The diet therapy section of the Hawaii Dietetic Association entertained Association members at a luncheon in the home economics building at which dehydrated foods were served. Discussion of their use and preparation in home and institution was led by Marian Weaver.

Mrs. Nora Mark, instructor in clothing, has resigned, and Mrs. Roy Len Chang has been appointed part-time instructor in clothing.

Mrs. Katherine Bazore Gruelle has returned from a year's leave and is teaching part time.

Department of Public Instruction. During the summer, students of home economics at the Stevenson School furnished and decorated a four-room cottage in one of the evacuation units. Mrs. Cathryn M. Irvine directed the work in an effort to show the community how quarters could be made more livable.

Mrs. Caroline Edwards is conducting a training school for Army mess sergeants at one of the local Army posts. Twenty-five are accepted in a class, and training lasts two months. During this time they serve daily meals for 130 men.

Idaho

Idaho Home Economics Association. Family Life Education Institutes held in Moscow, Boise, Idaho Falls, and Pocatello have been a major contribution of the Association to the state. "Youth, Recreation, and Family Living" was their theme, and the programs were based on suggestions from Association members and other community representatives and developed according to group needs. Leaders for these institutes were Mrs. Buena Maris, a personnel worker in a war industry in Washington; Ferdinand A. Bahr, Ogden, Utah; and Howard Feast, Denver, Colorado.

University of Idaho. Home economics seniors, as part of their training in community work, were included on the planning committee for the Family

Life Education Institute held in Moscow from November 18 to 20.

Pearl Stroud of Alabama has been appointed instructor in institution management.

Extension Service. Mildred Haberly, formerly district home demonstration agent, is the new state nutrition specialist.

Mrs. Alee Givens has been appointed district home demonstration agent with headquarters in Boise. Her husband is a lieutenant in the Navy.

Leatha Christensen and Mrs. Dorothy Stephens are now responsible for the clothing project in addition to their regular home demonstration work.

Lt. Frances Gallatin, formerly extension specialist in clothing, is now located at Baxter General Hospital, Spokane, Washington.

Illinois

State Department of Education. On October 21 and 22 the state supervisors, teacher trainers, and supervising teachers of off-campus centers from the reimbursed vocational state teachers colleges and universities met in Springfield to discuss ways of improving homemaking training for student teachers. Rua Van Horn of the U. S. Office of Education guided the group in setting up objectives and activities for the year. On November 23 and 24 this group met again with Miss Van Horn and Muriel Brown, also of the U. S. Office of Education.

Since the state meeting for vocational homemaking teachers is to be held in April 1944, the districts in the state held early fall meetings. The districts have been re-divided in order to make more meetings possible.

Hazel Haskett has been appointed an assistant state supervisor. Last year she taught at Humboldt High School, off-campus teaching center for Eastern State Teachers College.

Illinois State Normal University. The many friends of Bernice Tucker, teacher trainer in the homemaking department for several years, were grieved to learn of her death on November 9. An untiring worker, she will indeed be missed by her co-workers and friends.

Indiana

Indiana State Home Economics Association. The fall meeting was held in Indianapolis October 21 and 22. The AHEA's Wartime Institute was reported by Muriel McFarland, and the possibility of the ISHEA's holding a spring meeting, patterned after the national Institute, was discussed. The program also included discussion of "The School's Responsibility for the Care of Children in Wartime" by Ruth Strickland and "The Effect of War on Children" by Mrs. Asa Ruth Skard, child psychologist.

Butler University. Edna Meshke is the new head of the home economics department. She succeeds Kathryn Journey.

Grace Whitesell is Margaret Miles' successor.

Indiana State Teachers College. Marion C. Benson is acting itinerant teacher this year.

Mrs. Mildred Jansen is on leave to be with her husband, Lt. A. R. Jansen, a chaplain at Scott Field. Rhoda Foss is acting instructor at the Laboratory School during Mrs. Jansen's absence.

Students' Community Services. Home economics students are co-operating with the Terre Haute and Vigo County "Clean Plate Campaign" by appearing on a daily program broadcast from 5:00 to 5:05 p.m. over Station WBOW. In co-operation with the Vigo County Nutrition Council, the foods and nutrition classes are conducting a program series on food conservation, selection, and preparation each Friday from 1:45 to 2:00 p.m. over Station WBOW.

Classes in organization and methods are helping with exhibits and assisting in an adult education class in foods.

Iowa

Iowa Home Economics Association. An address by Jessie W. Harris, AHEA president, on "The Home Economist in Postwar Living" was a feature of the fall meeting. A film "And So to Work They Go," showing activities in child day-care centers, was followed by a panel discussion led by Mattie Pattison on ways the film could be used by schools and community groups. Elizabeth Sutherland of Iowa State Teachers College served as program chairman.

Sybil Woodruff of the University of Iowa is the Association's new president-elect, and Norma Hollen of Iowa State College is the new treasurer.

Membership at convention time totaled 423.

Iowa State Teachers College. Weekly broadcasts are sponsored by the home economics department over Station KXEL.

University of Iowa. Nearly 1,000 women participate in the "Double-V" war service program of the Women's Association, which co-ordinates war work of women on the campus and covers health, education, and service.

To help feed the men of the armed forces, 12 graduate dietitians are employed at the University

in addition to nine in the University Hospitals and two in the women's residence halls.

Vinetta Schmidt was married in July to Lt. (jg) LaVerne Larson. She is teaching in a high school near Chicago while her husband is on sea duty.

Clothing Conservation Conference. A statewide clothing conservation conference was held at Iowa State College on August 22 to promote better understanding of the wartime clothing situation and to correlate and advance the activities of the various adult and youth agencies, organizations, and institutions in the state in carrying out an educational clothing conservation program. The 250 people attending represented many groups and 90 of the 99 counties in the state.

Kansas

Kansas Home Economics Association. The council met in Topeka October 30. The annual meeting will be held there March 18.

HEWIB's. Jewel Hensley of the Gas Service Company, Topeka, and president of the Topeka home economics group, won state-wide acclaim for sponsorship of the Topeka Lunch Box Derby.

Marjorie Griffin, formerly *Chicago Daily News* foods editor, is home editor of *Capper's Farmer.*

Betty Boyle demonstrated soybean cookery to Kansas City HEWIB's in October in the Wyandotte County Gas Company's new victory kitchen.

Mrs. Doris Heidrick, home service director, Wichita, spoke on "Food Preservation" at a breakfast program of the American Gas Association during its St. Louis meeting in October.

Fort Hays State College. Esther Sim, '43, is a trainee with the Statler Hotel in St. Louis.

Mrs. Margaret Mooney Childs has a graduate fellowship at Michigan State College.

Elva Kearnes, Doris Whitney, and Cora Blackwell, alumnae, are connected with the service clubs of Camp Phillips at Salina.

Kansas State College. Dean Margaret M. Justin has been appointed by Governor Schoeppel to serve on the new 16-member state defense council, which replaces a 24-member body.

LeVelle Wood is a Red Cross assistant club director, in training for overseas duty.

New institution management staff members are: Mrs. Jean Dunnigan, Doris Odle, Catherine Marsh.

Margaret Harper, a supervising teacher in one of the out-in-state centers, has joined the teacher education staff at Stout Institute. Hilma Davis, another supervising teacher, is now at Texas State Teachers College, Denton.

Kansas State Teachers College, Pittsburg. Helen Gale Yenzer, formerly itinerant teacher-trainer in vocational homemaking in Indiana, has accepted a similar position in Kansas to succeed Elizabeth Journey, who resigned to help manage her father's business in Higginsville, Missouri.

Mrs. Aldene Langford directed a 3-day food preservation school for local women.

University of Kansas. Rua Van Horn of the U. S. Office of Education, at the request of the home economics staff, is making a comprehensive study of the department.

Olga M. Hoesly is on leave of absence.

Mary Elizabeth Evans has succeeded Marjorie Burton Noell as director of the nursery school.

Farm Security Administration. FSA workers are stressing adequate medical care and food and increased food production for 1944.

Florence McKinney has resigned as associate state director to become woman's editor for the *Kansas Farmer* and *Missouri Ruralist.*

Louisiana

Louisiana Home Economics Association. A wartime conference which replaced the regular state meeting was held in Alexandria on November 15. "Mobilizing Louisiana's Home Economists for the War and Postwar Years" was the theme.

State Nutrition Committee. Ellen LeNoir, state chairman and newly appointed chairman of the state food committee, states that a letter was issued jointly by the OCD, OPA, and state nutrition chairman to their respective local representatives asking co-operation in the formation of land food committees. Governor Jones has proclaimed November as "Food Fights for Freedom" month and mayors are doing likewise. A special committee is adapting parts of the national program to Louisiana situations, and this material is being supplied to local food committees and victory neighborhood leaders.

State Department of Education. Mrs. Iva Mae Dowling Caldwell has succeeded Mrs. Uarda Taylor as supervisor of the Community School Lunch Program.

Conferences for teachers of home economics have been held in all parishes to adjust the home economics program to the wartime effort.

Louisiana State University. Mrs. Dorothy Moschette is studying at the University of Chicago.

Ona Smith has returned from a year's leave for war work with the Bureau of Labor Statistics and Office of Price Administration.

The following are new staff members: Alma May Clark, formerly of West Texas State College; Maud Ryder from Kingswood School, Cranbrook, Bloomfield Hills, Michigan; and Elizabeth Tucker, formerly of Stephen F. Austin State Teachers College.

Extension Service. Mary Louise Collings, home management specialist, is on leave for work in the division of field studies and training of the U. S. Extension Service.

Gladys Tappan has returned to Louisiana to assume the duties of home management specialist.

Hazel Bratley, on leave for 20 months to serve as regional nutritionist with the Office of Defense Health and Welfare Services and later with the Food Distribution Administration, has returned to her position as extension nutritionist.

Mrs. Emerite Wilkinson, nutritionist in Miss Bratley's absence, is now on a year's leave.

Maryland

Baltimore Public Schools. The consumer division of the Baltimore Office of Civilian Defense requested the home economics department of the public schools to take charge of a canning project last summer. The course, which covered all phases of food preservation, was offered from June 1 to July 2. Block captains handled registration in the various schools and registrants had a choice of either three 2-hour demonstrations or two 3-hour demonstrations. At the 27 centers that were open, 35 teachers gave instruction to 1,180 women, both white and colored.

Massachusetts

Massachusetts Home Economics Association. The Association and the Eastern Massachusetts Association held a joint meeting in Boston on October 16 from 11 a.m. to 2 p.m. with no luncheon period.

Robert King Hall of the Harvard University Commission on English Language Studies spoke on "Can There Be a Good Neighbor Policy with the Peace?" "Better Living through Chemistry" was presented by Aretta Lynch Watts of the DuPont Company, who illustrated her talk with colored movies. Anna A. Kloss of the Massachusetts Department of Education described the new community school lunch program, and Lucy Fisher presented high lights of the AHEA's Wartime Institute. About 300 home economists attended.

A State-Wide School Lunch Program is being sponsored by the commissioners of the Massachusetts Departments of Education, Welfare, and Public Health and the Food Distribution Administration.

Massachusetts State College. The home economics department has arranged for a Wartime Foods Conference for home economists of the state. "Food Fights for Freedom" is the theme.

One purpose of the new nursery school, housed in Bowditch Lodge, is to prepare girls to help in child-care centers during wartime. The first semester included a 3-hour morning nursery school, but the second semester will include an all-day session that will provide luncheon for the children and a nap period. Mrs. Sara M. Coolidge is in charge of the school, assisted by Mrs. Marion Becker.

Oreana Merriam is teaching a new wartime course in experimental foods.

Simmons College. A nursery school, under Ruth Clapp's direction, was opened on the campus this fall. Home economics juniors are required to enroll in the 8-week child development course and must have a minimum of six hours of nursery observation and participation each week.

Mrs. Quindara Oliver Dodge is giving a 15-week course in Industrial Cafeteria Management to equip qualified women to assume administrative responsibility for industrial cafeterias.

Extension Service. The school lunch program for rural schools of Massachusetts is well under way. "Put Punch in Your Lunch" is a new leaflet by May E. Foley.

State Department of Public Health. The Department's nutrition service has been decentralized so that there is now a nutritionist at each of the eight health districts in the state. Florence Gates is the school lunch specialist and the following nutritionists are working with local boards of health: Mrs. Olive Page, Needham; Mrs. Rena Hasken, Belmont; and Mrs. Ellen Sheehan, Wellesley.

On September 27 the Department sponsored the 7th New England Nutritionists' Institute, which was attended by more than 100 nutritionists representing all the New England states.

Forsyth Dental Infirmary. Ruth White was married to Dr. Percy Howe in August and has been succeeded by Elizabeth Whipple, formerly of the Michigan Department of Public Health.

HEWIB's. Gretchen McMullen is home service director for the First National Stores, Inc., and is conducting daily radio programs.

Boston. Mrs. Nellie Saylor of New York City

has come to the Boston Visiting Nurse Association to succeed Mrs. Dorothy Duckles Hudson.

Michigan

Michigan Home Economics Association. The Michigan delegates who attended the AHEA's Wartime Institute have been spreading news of it throughout the state. At the eight regional conferences held in conjunction with the Michigan Education Association, the home economics section program included a report by an Institute delegate.

Central Michigan College of Education. A course in human biology, which includes work in nutrition taught by a member of the home economics staff, is required of all students training to be elementary teachers.

One-hour elective courses are popular. This semester, work in personal and family buying problems is offered. The home economics department is also conducting a nutrition clinic in connection with the College health service.

Western Michigan College of Education. Rachel Acree and Reinou Maurits are teaching a course on The Home and Its Management for 27 students studying occupational therapy at the Michigan State Hospital; Mary Moore is teaching dietetics to 33 nurses in training at Bronson Hospital; and Reinou Maurits is teaching a course on Personal and Social Problems to 24 business education students who are working in the city each afternoon. The students receive college credit.

Minnesota

State Nutrition Committee. A subcommittee is studying industrial nutrition problems, especially those of large plants. Representatives of labor, management, and employers compose the group working under the direction of Irene Netz and Dr. Foker of the State Department of Health.

Duluth State Teacher's College. Mary Rankin has joined the home economics staff, which now totals three.

Macalaster College. Ruth Bonde, formerly of The Pennsylvania State College, and Ella Johnson Olson, a former teacher at Kansas State College, who became Mrs. Roy Olson in October, are in charge of the home economics program inaugurated last year.

St. Olaf College. Lily Amundson, formerly of the Milwaukee Vocational School, is a new member of the home economics staff.

University of Minnesota. Anna Krost is working with teachers of adult programs on wartime problems of homemakers. The campus conference in October for teachers of adult classes stressed adaptation of home economics to wartime needs.

Anna Krost, Eva Donelson, Harriet Goldstein, and Jane Leichsenring spoke at the regional meetings of the Minnesota Education Association.

New staff members and their subjects include Esther Young, institution management; Ruth Montgomery, foods; Catherine Zander, nutrition; Elizabeth Hepworth, food and nutrition; and Marguerite Paulsen, art.

Clara M. Brown has been appointed by the president of the AHEA at the request of the U. S. Office of Education as chairman of a committee to make a report on the adjustment of college teaching in home economics to wartime conditions and needs.

Eva Donelson teaches an elective course in nutrition for public health nurses. Over 80 were enrolled in it last year.

Extension Service. Amy Wessel, formerly state 4-H club leader, and Esther McKowen, formerly home demonstration agent in Winona County, are assistant state home demonstration leaders.

HEWIB's. Ruth Arnesen, formerly of the Milwaukee Gas Company, and Marian Ralston, previously of the University of Minnesota, have joined the home service staff of General Mills.

Dorothy Zellers is doing research on soybeans for the Archer Daniels Midland Co.

School Lunch Program. The State Department of Education has employed Andy Taylor to direct the community school lunch program.

Mississippi

Mississippi Home Economics Association. About 500 persons attended the November meeting. The executive committee was pleased that so many sought active membership in the Association.

The fact that every ticket was used for the three demonstration nutrition deficiency clinics sponsored during the meeting by the State Board of Health and directed by Dr. Walter Wilkins showed the interest of the membership in nutrition. Many members of the state nutrition committee participated in these clinics.

The relation of the land to nutrition was stressed in addresses by Clarence Dorman, director of the state experiment station, and L. I. Jones, director of the extension service.

Officers elected include: president-elect, Mrs.

Brunette Hudson, Jackson; secretary, Minnie Lee Stoker, Mississippi State College for Women; treasurer, Maude Smith, Mississippi State College for Women; and councilor, Bertha Fritzsche, Mississippi Southern College.

Section chairmen elected include: Eleanor Wilson, State Board of Education, institution section; Mrs. Anna P. Felder, State College, extension section; Bessie Dees, Starkville, social service section; Herrine Knaves, Laurel, Negro section.

An active legislative program for the Association has been initiated by the committee under Mrs. Emma Lindsey's committee. The Association has asked for membership in the state women's legislative council.

Farm Security Administration. A series of training schools for members of the county advisory committees was completed this fall. Home management supervisors are now busy directing the storage of food, especially the canning of beef. The 1944 food production plan of clients includes an increase of 469,385 laying hens and 13,395 cows.

Missouri

Missouri Home Economics Association. The state meeting was held November 5 in St. Louis. Florence Fallgatter of Iowa State College was the luncheon speaker, and about 250 attended the afternoon session. Speakers at this included Jessie W. Harris, AHEA president; Anna Bines, National Live Stock and Meat Board; and Mrs. Donald Miller, Foreign Trade Education Committee, St. Louis. Two South American students from Washington University were special guests.

Textiles and Clothing Division. Mary Inez Mann, division chairman, organized and led a division session during the state meeting. Participants were: George W. Johns of Scruggs, Vandervoorst, Barney, St. Louis, who discussed "Merchandising Problems Today"; Mrs. Hannah Slutton, Paul Sachs Originals, "Dress Designing and Manufacturing Today"; C. E. Osterkamp, International Shoe Company, "Today's Shoe Picture"; and Pola Stout, Botany Flannel Mills, New York, "Piece Goods and Wardrobe Building."

Food and Nutrition Division. Margaret Spader of the Dairy Council of Kansas City, division chairman, is issuing six newsletters this year on material helpful to county nutrition chairmen.

State Nutrition Council. Detailed plans for the "Food Fights for Freedom" campaign were made at the meeting on November 12 and 13. Speakers included Swingle Paterson, British consul, and Marjorie M. Heseltine of the U. S. Children's Bureau, who spoke on "Nutrition of Children in Latin America." In addition to a panel discussion of the form of education to be used in 1944, talks were given on the contribution of the Missouri Home Economics Association to the nutrition program by Florence Harrison, Miss Heseltine, Flora Carl, and Mrs. Loutta Vrooman.

State Department of Education. "Home Economics in Wartime" was the theme of the intrastate conferences for teachers of vocational home economics held in Kansas City and St. Louis in August. A meeting of teachers new to the vocational home economics program was held the evening preceding the general conference.

Montana

Montana Home Economics Association. The fall council meeting was held in Butte October 30. The morning session was devoted to business, and at the luncheon meeting at the Hotel Finlen plans were made for a state conference in Bozeman March 17 and 18.

Margaret Conlon, home demonstration agent of Yellowstone County, is the new vice-president.

Homemakers Section. The 1942–43 homemakers' program included a survey of butter and butter substitutes on the Missoula market, including their vitamin content, calories, and relative price values; a price-ceiling survey of food, clothing, and rent; and co-operation in a meat-sharing and meat-substitute program.

Montana State College. The large number of Air Corps cadets and Army engineers on the campus has meant a greatly increased institution staff. Since the institution management work is under the home economics department, excellent opportunities for institution experience are now offered to both the majors in the institution management course and several graduate students.

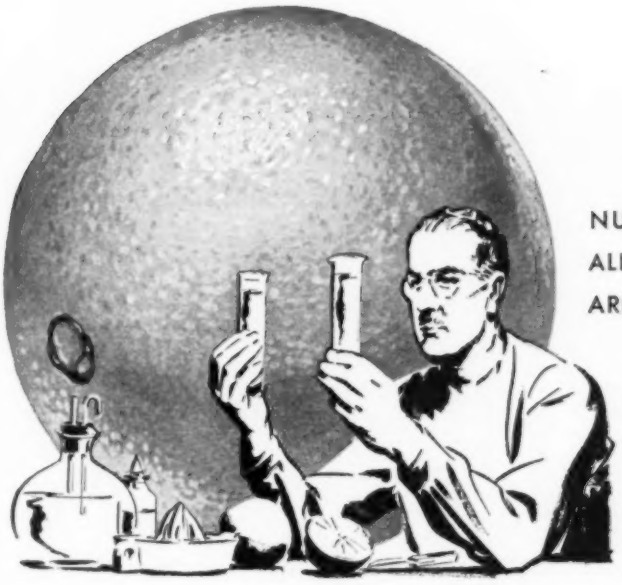
Twenty teachers registered in a clothing renovation and tailoring course held at the College from August 23 to September 4 to prepare teachers to place emphasis on wartime clothing problems.

Extension Service. Florence Elliott, home demonstration agent in Valley County for 15 years, has resigned.

Florence Johnson, home demonstration agent in Cascade County for several years, has been commissioned a lieutenant (jg) in the WAVES.

State Hospital, Warmsprings. Mrs. Nellie DeKalb Wolfe has resigned as dietitian and will reside at Lewistown.

FOOD FIGHTS for freedom



NUTRITIONALLY ALL ORANGES ARE GOOD...

But there is a difference!

Because of their vitamin content, and their inclusion in Group 2 of our government's "Basic 7" foods, *all* oranges are playing an important part in America's wartime diet. However, it is important to realize that there is a difference in the nutritional value of the juice of oranges grown in different parts of the country.

Below are the findings on vitamin C, from a report by the Bureau of Home Economics, U.S. Dept. of Agriculture:

VITAMIN C—*(Ascorbic Acid)*

Test Material	No. of Samples (6 tests per sample)	Ascorbic Acid per 100 Ml's		
		Hi.	Low	Av.
		mgs.		
ORANGES—California Navel	**15**	**68**	**50**	**58**
ORANGES—X variety*	**7**	**53**	**38**	**45**

These findings have been substantiated by 5 years of independent laboratory analysis on over 18,000 oranges from the two principal producing areas.

Here also are the findings on vitamin A, as reported in Publication 505, U. S. Department of Agriculture:

VITAMIN A—*(as Carotene)*

	I. U. per 100 Ml's
ORANGES—California Navel	**250**
ORANGES—X variety*	**60**

Similar results were shown by large-scale tests by independent laboratories.

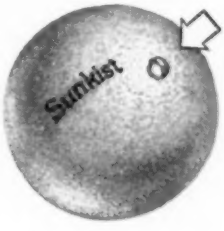
These significant differences have led us to designate California Navel Orange juice as the HIGH-VITAMIN JUICE. In addition it supplies valuable amounts of vitamins B_1, B_2 (G), calcium and other needed minerals.

**Represents largest percentage of oranges from other producing area.*

Sunkist

CALIFORNIA NAVEL ORANGES

BEST FOR JUICE—*and Every use!*



THE NAVEL MEANS SEEDLESS

California Navel Oranges contain no seeds. They are easy to peel, slice and section for salads, fruit cups and desserts, and they are ideal for any box lunch. Because their skins are clean and have a bright orange color, California Navels are also ideal for marmalade, candied and grated peel and other orange treats. Those marked Sunkist are the finest oranges from over 14,500 cooperating California-Arizona growers.

Made to Nutritional Specification

PREJUDICE against margarine because its nutrients are combined by science, instead of by the digestive system of the cow, seems rather silly today when so many of our good foods bear the imprint of science.

Grains are processed in many ways to make them attractive and palatable, easy to ship or store without spoilage . . . and then they are scientifically fortified to restore the food values lost in processing.

Milk—the most nearly perfect food—is pasteurized to make it safe . . . irradiated to bring it a step nearer nutritional perfection.

So Nucoa—a delicious modern margarine—is made to nutritional specification. Its essential ingredients are simple, natural foods—pure vegetable

Nutritious NUCOA . . . *a dependable*

(In writing to advertisers, please mention the journal—it helps.)

oils churned with fresh pasteurized and cultured skim milk. And Nucoa is uniformly fortified so that each 2 ounces (three 1½ x 1½ x ½ inch "pats") furnish *one-fourth* of an adult's and *one-third* of a child's daily minimum requirement of Vitamin A.

Because vegetable oils can be grown more plentifully and economically than fat can be produced in milk by feeding the cow, margarine is less expensive than butter. It has equal food-fuel value—3,300 calories per pound. And Nucoa's Vitamin A value—instead of being haphazard, depending upon the feed of the cow—is guaranteed by laboratory control.

The makers of Nucoa believe that everyone interested in furthering the National Nutrition program will want to be thoroughly up-to-date today on margarine. When you use Nucoa in your own home and see how delicious it is... how uniformly smooth-churned ... how uniformly sweet and fresh ... you will not hesitate to recommend it in diets where its low-cost nutrition can be truly beneficial.

A Product of THE BEST FOODS, Inc.

source of VITAMIN A

SCIENTIFIC CONTROLS IN THE MAKING OF NUCOA

The manufacture of Nucoa is under the technical direction of a qualified biochemist. A board of eminent scientists in the field of food research are constantly available as consultants.

The uniform quality of Nucoa is controlled in one of the best equipped food laboratories in the world.

102 tests daily (54 on the oil alone) assure the taste, texture, and food value that have made Nucoa America's largest selling margarine.

A triple test regularly guarantees Nucoa's Vitamin A content. The Carr-Price test checks the *presence* of Vitamin A... the quartz spectrophotometer test (only a few such instruments are in commercial use in the U. S.) accurately measures the *amount* of Vitamin A ... an independent biological test of Nucoa from store shelves checks the *retention* of Vitamin A.

U.S. NEEDS US STRONG
EAT THE BASIC 7 EVERY DAY
7 BASIC FOOD GROUPS ARE NEEDED DAILY FOR GOOD NUTRITION
This food is included in...
NUTRITION GROUP
SEVEN

. . . and Transform "Ordinary" Desserts into "Extra-Ordinary" Treats

Because the armed forces need and are getting the bulk of all chocolate produced, Nestle's Semi-Sweet isn't always easy to find these days. That's why you'll especially like the way this recipe for creamy, delicious Chocolate Chiffon Pie makes the most of *just a little* Semi-Sweet Chocolate.

• • •

Nestle's Semi-Sweet is ideal for *any* dessert or confection calling for chocolate or cocoa.

CREAMY CHOCOLATE CHIFFON PIE

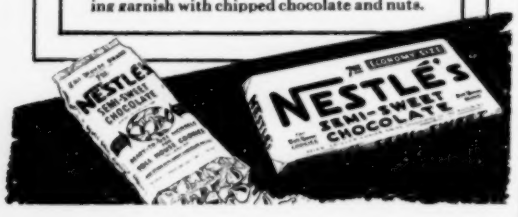
Made with Nestle's Semi-Sweet

1 envelope gelatine
¼ cup cold water
½ cup boiling water
½ Economy Size Bar or bag of Morsels (7 oz.) Nestle's Semi-Sweet Chocolate (reserve a small amount for garnish)
3 eggs
½ cup sugar
¼ tsp. salt
1 tsp. vanilla

Soften gelatine in cold water. Mix boiling water and Semi-Sweet Chocolate until smooth. Add softened gelatine to hot chocolate mixture and stir until dissolved.

Add egg yolks (slightly beaten), one half of the sugar, salt and vanilla. Cool and when mixture begins to thicken, fold in stiffly beaten egg whites and the rest of the sugar.

Fill baked pie shell and chill. Just before serving garnish with chipped chocolate and nuts.



MUSHROOMS DISCOVERED TO BE RICH IN RIBOFLAVIN

Rich Also in Minerals and Other Vitamins

Economical in both "points and pennies", American cultivated mushrooms are not only extenders of food and flavor—but add important nutritives to wartime meals!

Recent scientific investigations at the Massachusetts Agricultural Experiment Station* have shown that with the exception of yeast and certain nuts, cultivated mushrooms lead the vegetable kingdom in riboflavin content. In addition, the "little vegetable with the big flavor" contains appreciable amounts of niacin, thiamin, pantothenic acid, ascorbic acid, and vitamin K. Generous in copper and iron, the mineral content of our cultivated mushrooms is higher than many fruits and vegetables! Experiments showed canned mushrooms to be essentially of equal nutritive value with the fresh product.

For information on how to make use of this nutritious vegetable—write for FREE recipe booklets for your class—your files—your home! State number desired, name and address.

Write to: Marion Allen, Secretary
Cultivated Mushroom
Institute of America, Inc.
521 Fifth Avenue
New York 17, N. Y.

CULTIVATED MUSHROOM INSTITUTE OF AMERICA, INC.

521 Fifth Avenue New York 17, N. Y.

PURE UNBLEACHED MUSHROOMS CERTIFIED BY THE CULTIVATED MUSHROOM INSTITUTE OF AMERICA INC.

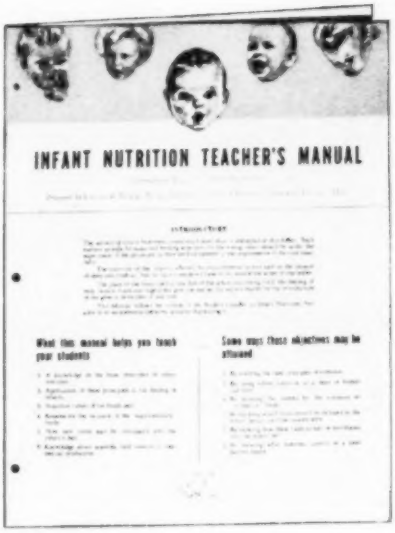
Look for this seal on the can. It is a guarantee of finest quality and purity.

*Proceedings Amer. Hort. Sci. 41:301-303 (1942)

(In writing to advertisers, please mention the journal—it helps.)

Birth Rate Increasing... Use This Infant Nutrition Help

Free on Request



TEACHER'S MANUAL

Here is basic information on this subject gathered from many sources, and assembled in a form which can be easily adapted to your own teaching technique. The newest data and practices have been included in this useful digest assembled by Dr. Lillian B. Storms. Size 8½" x 11", punched to fit your binder.

STUDENT LEAFLETS

This leaflet is so compiled that it can be used with the Teacher's Manual, or not, as you prefer. Clearly written, well illustrated, it has proved a real help to students of infant nutrition. Size 8½" x 11", punched for binders.

Gerber's
Baby Foods

CEREALS • **STRAINED FOODS** • **CHOPPED FOODS**

For your free copies write to Gerber's, Dept. 251, Fremont, Michigan.
Please indicate number of student's leaflets you require.

Vitamins Alone

MAY NOT BE ADEQUATE

The current popular importance placed upon vitamins, though justified in most respects, may prove harmful because of the decreased emphasis placed upon the need for other essential nutrients as well. A good nutritional state can be produced only by satisfying *all* nutritional requirements, not merely vitamins, but minerals, proteins, and an adequate caloric intake as well.

A food supplement in the true sense of the word, Ovaltine is a balanced mixture of nutrients which provides virtually all metabolic essentials. When taken twice daily with the average diet, this delicious food drink makes good the deficiencies usually present, and raises the total daily intake to nutritionally adequate levels. Thus a state of optimum nutrition can be attained easily and inexpensively, one in which not only vitamin requirements are met, but also mineral, protein, and caloric needs are satisfied. Ovaltine appeals to patients of all ages, and is usually taken with relish twice or more frequently daily, if so recommended by the physician. The Wander Company, 360 North Michigan Avenue, Chicago, Illinois.

Ovaltine

Three daily servings (1½ oz.) of New Improved Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN	6.0 Gm.	31.2 Gm.	VITAMIN A	1500 I.U.	2953 I.U.
CARBOHYDRATE	30.0 Gm.	62.43 Gm.	VITAMIN D	405 I.U.	480 I.U.
FAT	2.8 Gm.	29.34 Gm.	THIAMINE	.9 mg.	1.296 mg.
CALCIUM	.25 Gm.	1.104 Gm.	RIBOFLAVIN	.25 mg.	1.278 mg.
PHOSPHORUS	.25 Gm.	.903 Gm.	NIACIN	5.0 mg.	6.9 mg.
IRON	10.5 mg.	11.94 mg.	COPPER	.5 mg.	.5 mg.

*Each serving made with 8 oz. milk; based on average reported values for milk.

(In writing to advertisers, please mention the journal—it helps.)

H.R. 2400

SENTENCED TO DEATH

That was the fate of H.R. 2400—a bill to do away with certain Federal taxes and license fees on margarine. It was killed by the House Agricultural Committee on November 9th, 1943.

This House Agricultural Committee killed H.R. 2400 without even hearing rebuttal witnesses. It was not necessary for them to hear witnesses.

Yet H.R. 2400 was only designed to remove the following discriminatory Federal tax and license fees that have been imposed on margarine for many years;

10c per lb. on yellow colored margarine
¼c per lb. on uncolored margarine
$600 per year on manufacturers
$480 per year on wholesalers of colored margarine
$200 per year on wholesalers of uncolored margarine
$48 per year on retailers of colored margarine
$6 per year on retailers of uncolored margarine

This Bill H.R. 2400 was killed in Committee. It never got to the floor of the House where the consumers interests might be considered.

But this fight is only beginning. If you believe in margarine as a present day nutritional food, we ask your vocal support with your legislators. We will keep you posted—you post your congressmen.

And so perhaps you would like us to bring you right up to date on margarine as a nutritional food. We have available a number of interesting pamphlets on margarine—its 9000 Units of Vitamin A—its 3300 calories to the pound—its value as a nutritional food product. Just use the coupon below.

NATIONAL ASSOCIATION OF MARGARINE MANUFACTURERS

MUNSEY BLDG. ★ WASHINGTON, D. C.

National Association of Margarine Manufacturers,
Munsey Building, Washington, D. C.

Dear Sirs:

Please send me your pamphlets on Margarine.

NAME.....

ADDRESS.....

CITY.....

To our friends in the profession serving in the battle zones and on the home front we extend our sincere wishes for 1944 and wholeheartedly join you in the hope that peace will soon be a reality over the whole world.
DOLE
HAWAIIAN PINEAPPLE COMPANY
BUY ANOTHER WAR BOND

Announcing

THE NEW HOUSEHOLD FINANCE INCOME TAX GUIDE

Shows how to fill in your tax form and how to figure your tax

EVERYONE must file a final return on 1943 income by March 15 of this year. Do you know how to fill in the new form and how to calculate how much you must pay on March 15?

Household's new Income Tax Guide will show you just what to do. This is a completely revised edition of the same guide which last year helped thousands of taxpayers to fill in their tax blanks quickly and figure their taxes correctly.

Have your own workbook

This new edition also provides a convenient check list and workbook. The Guide contains handy spaces for you to enter your own figures and calculate your own tax with a minimum of time and effort. It tells what you must do to comply with the new tax law and avoid penalties. It also gives you many practical suggestions for making sure that you pay only what is properly due from you. All the information you need can be entered and preserved in the Guide itself. After you have made your calculations you have only to copy the figures on the tax blank you file with the Government.

Send for free copy

If you used the Household Tax Guide last year we are sure you will find the edition for this year equally helpful. If you did not, here is an opportunity to get acquainted with it before your March 15 tax return is due.

Printing of the Guide for this year is seriously limited. We suggest that you mail the coupon now. We will gladly send you a copy as soon as the Guide is off the press. Don't wait until the supply is exhausted!

Research Dept. JHE-A
HOUSEHOLD FINANCE CORPORATION
919 N. Michigan Ave., Chicago 11

Please send me free copy of the new Household Finance Income Tax Guide as soon as it is ready.

Name .....

Address .....

City ..... *State* .....

Detroit Public Library

HOUSEHOLD FINANCE
Corporation
ESTABLISHED 1878

Headquarters: 919 North Michigan Ave., Chicago 11

One of America's leading family finance organizations with 317 branches in 205 cities

PRODUCTS

Bearing This Seal

ARE BACKED BY A *Triple* GUARANTEE

CERTIFIED MERCHANDISE · UNITED STATES TESTING CO. INC. · SEAL OF QUALITY

*Member o A. C. C. L.

When you see the Seal of Quality of the United States Testing Company, Inc., on any product . . . feel absolutely safe in buying it. For that product is backed by this *triple protection:*

1. The protection of the maker who is pledged to maintain the quality of his certified product as long as it bears the Seal.

2. The protection of the United States Testing Company, Inc., which regularly check-tests all certified products to make sure they are maintaining quality and thus continue to deserve the Seal.

3. The protection of Science, for all certified products are tested for raw material content, construction, and serviceability before they are awarded the Seal.

The following certified products have been awarded the Seal of Quality after scientific test:

The following products have been tested, certified, and awarded the Seal of Quality:

"Bemberg"-Woven and Knitted Rayon Dress and Underwear Fabrics — *AMERICAN BEMBERG CORP.*
Bijou Hosiery — *BLUE LINE HOSIERY MILLS, INC.*
Headlight and Crown Overalls — *CROWN OVERALL MFG. CO.*
Girls' Gym Suits — *E. R. MOORE COMPANY*
North American Woven and Knitted Rayon Dress and Underwear Fabrics — *NORTH AMERICAN RAYON CORP.*
Pequot Sheets and Pillow Cases — *PEQUOT MILLS*
Women's Coats — *PRINTZ BIEDERMAN*
Pen-Rad, Royal Windsor and Radbiloil Motor Oil, Renuzit French Dry Cleaner — *RADBILL OIL COMPANY*
Rayon Songette Slips — *SUSSBERG & FEINBERG*
Tubize Rayon Woven and Knitted Dress and Underwear Fabrics — *TUBIZE CHATILLON CORPORATION*

• American Council of Commercial Laboratories

UNITED STATES TESTING COMPANY, INC.
ESTABLISHED 1880
HOBOKEN, NEW JERSEY
NEW YORK • PHILADELPHIA • GREENSBORO • WOONSOCKET • CHICAGO

(In writing to advertisers, please mention the journal—it helps.)

How our dietary needs for NIACIN

can be generously met with the aid of the new enrichment levels for flour and white bread . . .

IN THE average American pre-war diet, there was a considerable shortage of niacin (one of the important B vitamins, and essential in the diet). This shortage can be completely met through the enrichment of flour and white bread to the new Government standards, effective Oct. 1, 1943. This is clearly shown in these charts prepared under the direction of General Mills Nutrition Department.

The first chart shows that 21.5% of the recommended daily per capita allowance of niacin was not provided for in the average pre-war American diet.

The second chart shows that this same dietary can meet the recommended daily per capita allowance of niacin generously, if all flour-converted products are enriched in line with the new standards.

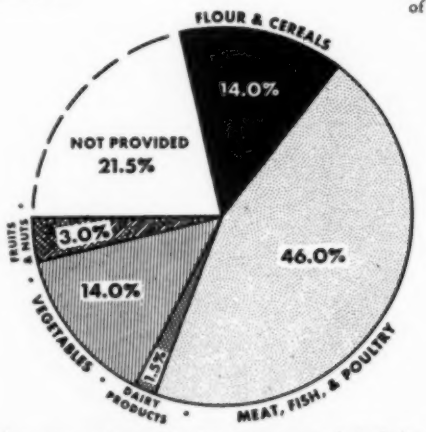
Through this new enrichment program, important contributions to the American diet are made also in thiamine (another B vitamin), riboflavin (vitamin B_2), and iron.

Flour labeled "enriched" must now meet the new standards. All baker's white bread must now be enriched and must contain a minimum of these nutrients equivalent to the new standards for enriched flour.

Since October 1, 1943, all General Mills brands of family flour are being enriched to the new standards.

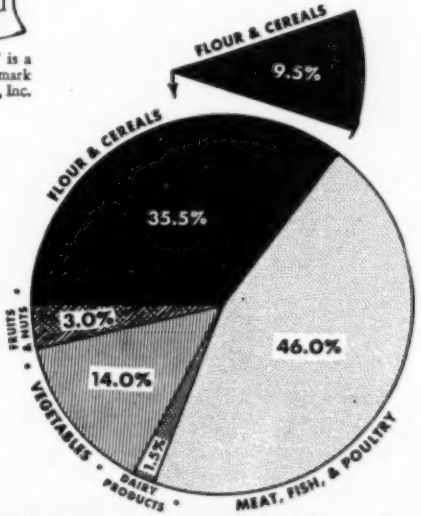
"Kitchen-tested" is a registered trade mark of General Mills, Inc.

General Mills, Inc.
MINNEAPOLIS, MINNESOTA



Showing percentages of the recommended daily per capita allowance of niacin contributed by various classes of foods in the average American pre-war diet; and the percentage not provided.

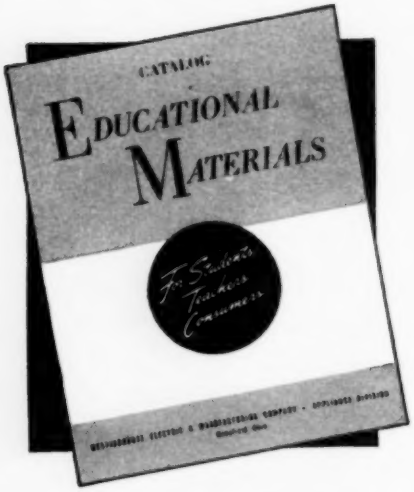
The above charts are based on 16 mg. of niacin and 2800 calories (the recommended daily allowances for niacin and calories on a per capita basis). Average cooking losses of niacin have also been taken into account.



Showing increase in percentage of the recommended daily per capita allowance of niacin contributed if all the flour-converted products in the average normal (pre-war) diet were enriched in line with the new enrichment standards. (By the enrichment of flour and bread, the niacin contained in the average American diet would be 9.5% over the total recommended. This extra allowance will compensate in part or wholly for present scarcities of certain other foods rich in niacin.)

You'll Value This New Catalog In Planning Your Classroom Projects

The materials in this helpful catalog are grouped in classifications with full description and ordering information. There is a close correlation between the literature and films offered which permits the planning of several units of study on health, nutrition, cooking, household management, care of equipment and conservation. Widely used for classroom projects or reference.



- ✓ **A series of five teachers' reference handbooks.**
- ✓ **Sound motion pictures and dramatic sound-slide films for visual education projects.**
- ✓ **Student fact folders for home economics classes.**
- ✓ **Special wartime booklets on nutrition and conservation.**
- ✓ **Guide books on the theory and practice of home lighting.**
- ✓ **Authoritative data on vitamin retention studies.**

IT'S FREE! JUST TELL US WHERE TO MAIL IT

Just off the press, this catalog of educational materials will be sent without charge to home economists, nutritionists and teachers. Just mail the coupon.

Tune in on John Charles Thomas, Westinghouse Program, NBC, Sunday at 2:30 P.M., E.W.T.

Westinghouse

Plants in 25 Cities . . . Offices Everywhere

ELECTRIC APPLIANCE DIVISION

Consumer Education Section, 206 Fourth Street, Westinghouse Electric & Mfg. Co., Mansfield, Ohio

Please send me a free copy of your new Catalog of Educational Materials.

Name_____

Address_____

Organization_____

City_____ State_____

Detroit Public Library

Marshall Field & Company

CHICAGO "Everyone's wanting our Celanese rayon hosiery"

Burdine's

MIAMI "New elasticity . . . better fit . . . dry overnight . . . sheer flattering look"

SAKS FIFTH AVENUE

NEW YORK "It is not affected by perspiration, so its 'life-span' can easily be longer than the ordinary hose"

I. Magnin & Co.

LOS ANGELES "Wonder stockings of fine Celanese rayon"

EAST OR WEST...
NORTH OR SOUTH...
rayon hosiery of *Celanese* yarn is fast becoming a tradition in fine stores.

Celanese Corporation of America
180 Madison Avenue, N.Y. 16

*Reg. U.S. Pat. Off.

Filene's

BOSTON "And what a pleasure they are to wear!"

HUDSON'S

DETROIT "and what a convenience; they dry overnight"

The Halle Bros. Co.

CLEVELAND "sheer and lovely—yet staunch and serviceable hose"

HORNE'S

PITTSBURGH "snag resistant because they're so smooth"

L. BAMBERGER & CO.

NEWARK "They keep their shape . . . they're true to size"

STRAWBRIDGE & CLOTHIER

PHILADELPHIA "... And they're constructed so well they cling to your leg with nary a wrinkle"

A hot breakfast . . . a quickie breakfast

. . . a really adequate breakfast with delicious

GRAPE-NUTS WHEAT-MEAL!

"Jiggers, it's cold!" There couldn't be a better time to start the happy habit of eating a good breakfast than now when folks like something hot and sustaining to get them started. General Foods suggests Grape-Nuts Wheat-Meal . . . quick-cooking, brown, appetizing, *delicious* in taste and texture.

As you go about your job of persuading our busy nation that this first morning meal should supply about ¼ to ⅓ of the day's full nourishment, remember that hot, brown Grape-Nuts Wheat-Meal is an especially rich source of Vitamin B_1, as well as other food essentials. Served with milk, fruit, toast, and beverage, it is the basis of a delicious, adequate breakfast.

Best of all, there's plenty of yum-yum, lip-smacking delight in Grape-Nuts Wheat-Meal. And it cooks while the coffee's perking! Boy, what a breakfast these cold winter mornings!

Try Hot . . . Brown . . . Quick-Cooking

Grape-Nuts WHEAT-MEAL

TWICE THE THIAMIN OF WHOLE WHEAT!

One ounce of Grape-Nuts Wheat-Meal, served with three ounces of milk, supplies the following approximate percentages* of an adult's minimum daily needs:

Protein	(6 gm.)—8 to 10%
Thiamin	(.351 mg.)—35%
Riboflavin	(.234 mg.)—12%
Niacin	(1.70 mg.)—11%
Iron	(1.98 mg.)—20%
Calcium	(125 mg.)—17%
Phosphorus	(170 mg.)—23%
Calories	157

**Percentages (except Protein and Niacin) based on daily requirements set up by the Federal Food and Drug Administration. Protein based on 60 grams and 70 grams, Niacin on 15 milligrams.*

SIX

Other Delicious General Foods Cereals: Grape-Nuts, Grape-Nuts Flakes, Post Toasties, Post's 40% Bran Flakes